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# AIR CONDITIONING AND REFRIGERATION News

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## INSIDE DOPE by GEORGE F. TAUBENECK

Story of the Week  
Latin America Has  
Large Sums of Gold  
Demand Won't Be Automatic  
No Bourgeoisie  
Play Up to the Women  
Impervious Fellow  
Dominant Maritime Power

### Story of the Week

One of the leading Hollywood pin-up beauties concluded an interview with a group of newspaper correspondents by making a rather unusual contribution to the cause of good will.

This languorous lovely asked the first reporter who approached her which paper he represented. After he answered her query, he was rewarded with a tasty kiss. O, boy!

The next reporter thereafter revealed that he represented two newspapers, and consequently should be entitled to two kisses. This lucky fellow promptly received two supercharged smackers.

Turning to the tall and rangy Texan who lounged against the mantelpiece, the curvaceous star inquired for whom he wrote.

"Well, ma'am, I'll tell you," he grinned. "I write for the Associated Press, and my stories appear in more than 1,200 newspapers!"

### Latin America Has Large Sums of Gold

A substantial part of the United States' huge store of monetary gold has been transferred to the account of other American republics.

This shift of gold, the largest transfer of its kind in recent years, has resulted from the heavy excess of imports from the other Americas over exports from the United States.

"Cash payments for excess imports are now running at the rate of about \$600,000,000 a year," declares the National City Bank of New York, in commenting on the gold transfer.

The bulk apparently is going to individual Latin American countries. This in turn is being reflected in the phenomenal growth of Latin American gold and foreign-exchange balances, which increased during the first nine months of 1943 by some \$700,000,000 to more than \$2,000,000.

During 1943 and early 1944, the United States Treasury's holdings of gold dropped about \$900,000,000.

The trade balance in favor of the other Americas has been increasing steadily since the United States—more than four years ago—began to turn to hemisphere sources for metals, fibers, rubber, and other strategic materials.

And, the increase in gold and foreign-exchange holdings of the other American republics has attracted widespread attention in business circles.

Furthermore, the improvement in the financial position of these other American republics is regarded, in trade quarters, as being one of the strongest assurances we can acknowledge for the maintenance of a high level of inter-American commerce during the next five to nine years.

### Demand Won't Be Automatic

Exporters are pointing out that the phenomenal increase in gold and exchange balances of Latin America makes a backlog of purchasing power for use when U. S. industry again can supply export demand.

We cannot rest supinely however, upon these prospects of earmarked South American purchases.

We should remember that the European exporters who have always

### Oberc Hits REWA Official's Comment On Sales Policies

DETROIT—Declaring that comments by Theodore I. Glou, president of Refrigeration Equipment Wholesalers Association, on the announced plan of J. M. Oberc, Inc., Detroit parts and equipment wholesaler, to sell "packaged" refrigeration equipment "are not in accord with the facts," Mr. Oberc has asked that the NEWS publish in part his reply.

"I cannot see why this announced policy of merchandising is called the Oberc plan," he told the NEWS, "when the majority of parts and equipment wholesalers are operating in the same manner, nor why our particular company should have been singled out for censure through the press."

Mr. Oberc's letter for publication follows:

J. M. Oberc, Inc.  
904 W. Baltimore  
Detroit, Mich.

Feb. 17, 1947

"Editor:

"I was interested in reading the two articles in the Jan. 27, 1947 issue of your publication, pages 1 and 21, headed "REWA States View on Oberc Fixture Plan," and "Exclusive Sales Still Prohibited by REWA," over the signature of T. I. Glou, President of REWA.

"With the view of being more considerate of the office of the president of REWA, and to uphold the dignity of the officers, directors, and membership of the association, a detailed report is being made direct to its officers and directors.

"However, because the inferences, innuendo and subterfuge resorted to only cloud the issue, and the fact that same may possibly have an adverse bearing upon contracts closed or in the process of consummation with suppliers, we find it necessary to make the following brief comment to you and to the readers of AIR CONDITIONING & REFRIGERATION NEWS.

"The issue with which REWA is confronted today is whether refrigeration equipment wholesalers are prepared to take advantage of expanding their operations to handle a complete line of packaged goods, which in my opinion is in strict accordance with the constitution and by-laws of the association, as was the case several years ago in connection with the handling of high and low-side equipment.

"The fact of the matter is that in excess of 80% of the membership of REWA does today handle packaged goods or equipment to the trade on a non-exclusive basis, some handling the equipment to a larger and some to a lesser degree than anticipated by our company, and not declaring this to be a fact is mere subterfuge. "Ducking" this statement of policy will not solve the problem at hand.

(Concluded on Page 28, Column 1)

### Wollam To Assist Spray At Sturtevant Division

PITTSBURGH—Ellis L. Spray, vice president of Westinghouse Electric Corp., has announced the appointment of Gerald Z. Wollam as his assistant in the supervision of the company's Elevator Division in Jersey City, N. J., and the Sturtevant Division at Hyde Park, Mass.

Before assuming his present assignment Mr. Wollam was director of the company's Wage Incentive Department and chairman of the Wage Procedure Coordinating Committee in Pittsburgh, since July, 1944. In 1939 Mr. Wollam was made assistant manager of the Westinghouse Radio Division at Baltimore, two years later works manager of the Sunbury, Pa., plant and in 1943 he became assistant to the director of the headquarters manufacturing engineering department at Pittsburgh.

He predicted that despite the efforts of Norge and other producers in the field, there would be no clearly evident "buyers market" for household appliances for many months to come.

### Locker Storage Demand 'Holds' In Rural Areas

OMAHA, Neb.—In rural areas, the demand for frozen food lockers continues just as great as ever and new plants are filled to capacity almost as soon as they are opened.

That conclusion was reached by R. R. Farquhar, executive director of the Frozen Food Locker Institute, Inc. here (formerly the Frozen Food Locker Supplier and Manufacturers Association) based on replies to a questionnaire circulated among Institute members and presidents and secretaries of several state frozen food locker associations.

Replies to the questionnaire also revealed that a strong majority of members felt that the end of meat rationing had made no difference in the public demand for lockers, especially in rural areas.

Higher prices for locker rentals (Concluded on Page 2, Column 5)

### Mason In Warning To Government on Pig Iron Shortage

DETROIT—George W. Mason, president of Nash-Kelvinator Corp., and of the Automobile Manufacturers Association, last week warned the Office of Temporary Controls that a pig iron shortage, which he blamed on excessive allocations for housing, threatens to cause lowered production by as early as March or April.

In a letter to Maj. Gen. Phillip B. Fleming, OTC Administrator, Mr. Mason urged immediate termination of Government allocation and priority controls.

While Mr. Mason's comments were in reference to the automotive industry, it is obvious that a continuing pig iron shortage also may have a depressing effect on production of condensing units and electric motors.

"All the evidence we have," Mr. Mason said, "is that the key to the pig iron shortage is the allocation to housing purposes, which seem to exceed present realistic housing completion schedules."

"We are fully aware of other conditions limiting pig iron supply and it is because of these that we maintain it is absolutely necessary to avoid tying up valuable tonnage where it will not be put to immediate use," Mr. Mason wrote. The AMA feels, he said, that creation of a free market through immediate termination of Government controls "will most quickly accomplish an equitable and productive distribution of available materials."

"The Government should make this possible without delay," he stressed. "Failing to do so, it should face the fact that it is carrying the responsibility for curtailing employment and output of needed goods."

### Norge Hits New Highs on Range and Heater Output

DETROIT—New all-time highs have been reached in the production of Norge gas and electric ranges and home heaters, and record output peaks on household refrigerators and washing machines should be achieved by mid-year, according to M. G. O'Hara, vice president and director of sales, the Norge division of Borg-Warner Corp.

He predicted that despite the efforts of Norge and other producers in the field, there would be no clearly evident "buyers market" for household appliances for many months to come.

### '48 Show Chairman



F. J. HOOD

Named chairman of the 1948 All-Industry Refrigeration and Air Conditioning Exposition.

### Kitchen Cabinets Released From Credit Restrictions

WASHINGTON, D. C.—Kitchen cabinets are no longer considered "furniture" for the purposes of Regulation W and therefore no longer require a 20% down payment, the Board of Governors of the Federal Reserve Bank ruled last week.

Instalment credit extended by a merchant or dealer in connection with the sale of kitchen cabinets, regardless of their type or design, is no longer subject to the provisions of Regulation W and paper arising from such sales may be purchased or discounted without restriction under the Regulation.

The Board also released an interpretation of what its members consider to be a "set, group, or assembly" for the purposes of the regulation.

They declared that the items must be so related as to constitute a set, group, or assembly; they must be commonly merchandised as a single unit; and they must be sold or delivered at substantially the same time.

All three requisites must be present in order for Regulation W to be applicable to the items as a set, they stated.

The Board explained that a living room suite or a sectional book case would be considered a group. On the other hand, a refrigerator and a vacuum cleaner, or a radio and a chair would not be deemed sets even if offered in combination.

### Lack of Refrigeration Gets Share of Blame In Pie Poisoning of 243

DETROIT—Lack of refrigeration in places selling Boston cream pies was cited as a contributing factor in the poisoning of 243 persons here last week.

The poisonings were caused by the eating of Boston cream pies heavily contaminated with staphylococcus bacteria, according to city health officials. These germs are said to release a poison when growing on food that causes severe nausea and chills.

Arthur Ellis, vice president of Farm Crest Bakeries, Inc., maker of the contaminated pies, pointed out that of the 1,025 cream pies delivered at that particular time, 365 were placed in restaurants where they are normally kept under refrigeration.

Only two of the persons taken ill from eating the pies said they had consumed them in restaurants.

"Those who ate the pies on Friday, the day they were baked, showed no ill effects, but after the pies were two or three days old and unprotected by refrigeration, the bacteria became active," Mr. Ellis declared.

### R.E.M.A. To Meet April 9-11; Hood Show Chairman

Meetings With R.E.W.A.  
To Be Resumed In Future  
According to Plans

PITTSBURGH—Refrigeration Equipment Manufacturers Association will hold its annual meeting April 9, 10, and 11 at the Edgewater Beach hotel in Chicago, it is announced by R. Kennedy Hanson, executive secretary of the association.

It was also announced that F. J. Hood, Ansul Chemical Co., has been appointed Chairman of the 1948 All-Industry Refrigeration and Air Conditioning Exposition, to be held next January in Cleveland. Mr. Hood will be assisted by J. A. Strachan of the Weatherhead Co., and J. A. Marshall, Wolverine Tube Division.

The fact that Rema is meeting at a different time than the Refrigeration Equipment Wholesalers Association (which meets March 20-22) does not mean that there has been any abandonment of the general policy of meeting simultaneously with the parts and equipment wholesaler membership, it was pointed out. In this particular case it was impossible to obtain accommodations large enough for both groups for the 1947 meetings. A schedule of meetings for future years shows that Rema plans joint meetings with Rewa.

Board of directors and advisory board members of Rema will meet the first day, April 9, and elect directors and officers for the coming year. Annual meeting of the entire membership will be held the second day, and product section meetings the third day, April 11 (this order of business is changed somewhat from a preliminary announcement (Concluded on Page 4, Column 4)

### CIO Electrical Workers Start Bargaining Talks

NEW YORK CITY—Delegates of the United Electrical Radio and Machine Workers (CIO) last week were negotiating with General Electric officials here and Westinghouse representatives in Pittsburgh for contract changes directly affecting some 200,000 workers.

One of the major issues on the agenda, union officials said, would be a demand for "substantial wage increases."

Negotiations in Pittsburgh, covering about 75,000 Westinghouse employees in plants throughout the country, concerned recommendations by union heads for a new contract to replace the one expiring March 31.

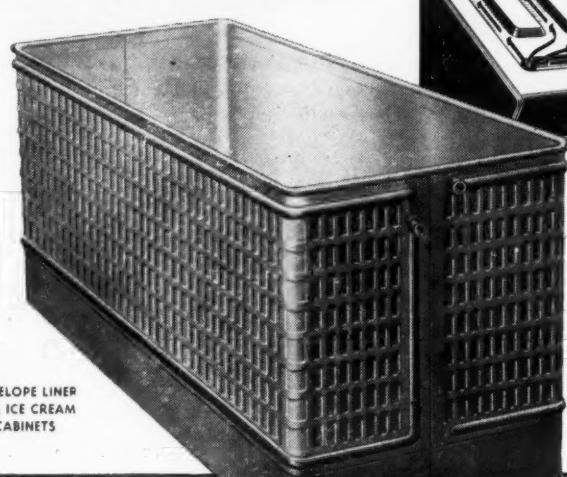
Reports indicate that during the talks in Pittsburgh union leaders would seek to recover approximately 27 cents per hour which, they contend, is how much the increased living costs since July 1945 have cut into workers' buying power. It is felt that at least a 29-cent hourly rise might be sought.

Similar negotiations took place here last week when UE delegates, (Concluded on Page 4, Column 5)

### Curtis Names Morrison, Lodwick Vice Presidents

ST. LOUIS—Harry C. Morrison's election as vice president in charge of sales for the Refrigeration Division and John D. Lodwick's election as vice president in charge of the sales for the Pneumatic Division of Curtis Mfg. Co. here were announced following a recent meeting of the company's board of directors.

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BTC EVAPORATOR PLATES**  
Feature Trouble-Free Operation



ENVELOPE LINER  
FOR ICE CREAM  
CABINETS

The exclusive features of BTC Evaporator Plates provide trouble-free, dependable operation. Exact engineering and quality manufacturing plus the basic, "Cross Flow" gridiron design, produce results not possible with ordinary evaporator plates: Full-Flooded Principle — The BTC "Cross Flow" pattern provides multiple paths for refrigerant flow permitting uniform wetting of the entire plate, and unrestricted operation of the full-flooded principle . . . essential for good refrigeration. Sturdy Construction — BTC Evaporator Plates, embodying all the best manufacturing standards, are made of heavy,

gridiron embossed steel, 16-gauge; all electrically welded with metallized zinc spray on sand-blasted surface; dehydrated, moisture-vapor free and scrupulously clean. Lowest Operating Cost—BTC Evaporator Plates, correctly engineered and quality manufactured, assure low pressure drop and constant, uniform heat transfer with resulting lowest operating cost. BTC Evaporator Plates are engineered and manufactured for trouble-free operation. Write Brewer-Titchener for data on BTC Evaporator Plates to meet whatever commercial or technical refrigeration application you may have.

**THE BREWER-TITCHENER CORPORATION  
CRANDAL-STONE DIVISION --- BINGHAMTON, N. Y.**

**Tighter Terms Now Will  
Help Later, Says Banker**

CHICAGO—Kenneth R. Wells, assistant vice president, American National Bank & Trust Co. of Chicago, advised a tightening of instalment credit terms now to provide a cushion against too much liberalization when the buyer's market arrives in force.

Addressing the convention of the Associated Equipment Distributors at the Edgewater Beach Hotel here, he urged that present terms be more restrictive, in order to prevent cuts to unsound levels.

As an example, he said "If today we offer terms of 25% down and 18 months to pay, the only way those terms can be liberalized is to reduce down-payments as to 20, or 10%, and extend payment periods to two, or three years. On the other hand, if we get one-third down today and make the balance payable in not to exceed 12 months, we can later reduce terms and still have a sound transaction."

He warned that in spite of the fact that getting the equipment to sell is now the principal dealer problem, the problem of financing the dealer's own business will come up in the not-too-distant future. Another reason for holding terms to short maturities is the fact that a contractor is reluctant to buy more equipment from a dealer to whom he is indebted. Therefore, a six-month payment basis would put the contractor back in the market in the seventh month.

He warned dealers against putting too much money in fixed assets.

**Locker Operators Say Demand Continues  
Despite the Ending of Meat Rationing**

The questions asked of locker operators and the replies received are listed below:

- |   |                                  |
|---|----------------------------------|
| 1. In your opinion, has the end of meat rationing made any difference in the public demand for lockers?                         | Yes 16<br>No 36                  |
| 2. Has the decrease in demand, if any, been as pronounced in small towns and rural areas as in the cities?                      | Yes 1<br>No 40                   |
| 3. Have the present increased costs of locker plant construction resulted in the delay of proposed building plans in your area? | Yes 39<br>No 12                  |
| 4. Have higher prices for locker rentals and processing charges resulted in any serious consumer resistance?                    | Yes 2<br>No 50                   |
| 5. Is the supply of building materials in your area better or worse than it was six months ago?                                 | Better 17<br>Worse 18<br>Same 16 |
| 6. Has the demand for home storage units been up to previous expectations?  | Yes 9<br>No 43                   |
| 7. In your opinion, are additional locker schools desirable for the training of potential employees or plant owners?            | Yes 41<br>No 9                   |

**Demand for Lockers --**

(Concluded from Page 1)  
and processing charges has resulted in no serious consumer resistance, the replies indicated.

The answers are said to confirm the opinion of several manufacturers of home storage units that the demand for such units have not lived up to expectations.

Mr. Farquhar said that the home storage unit manufacturers believe that their units will have to be merchandised and sold along the same lines as refrigerators were sold when the industry was getting started.

Questionnaire replies further revealed that additional locker schools are considered desirable for the training of potential employees or plant owners.

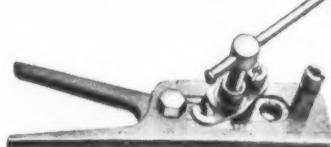
**Southwest Airtemp Dealer  
Changes Name of Company**

OKLAHOMA CITY—The former Southwest Airtemp dealership here has changed its name to C. Robert Ingram, Inc., according to a recent announcement.

Claiming to be the oldest Chrysler-Airtemp dealer in the Southwest, the company reports that there will be no change in owners, personnel, engineering, or location.

**"SUPERIOR  
is  
SURPASSING"**

SIX TOOLS IN ONE AND  
WORKS LIKE "SIXTY"



The Papco #400 is a compact flaring tool that holds six sizes of tube and gives you a quicker, easier and better flare. Send for Bulletin.

GET YOURS NOW

For over a quarter century Penn has maintained exact standards for 'Superior' tubing.

If you want to build a Superior product or to give Superior service, you should use the best materials obtainable. In copper tubing 'Superior' is your best bet for 'Superior' is better four ways -- Dry -- Clean & Bright -- Seamless and Easy Bending.

Since there is no better tube, for no tube surpasses 'Superior', we still can't meet the demand. Plan now to use 'Superior' for all your needs and write today for full particulars and a new colorful circular entitled "After the Pressure is Off".

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Culminating more than fifteen years of steady growth and leadership in the field of refrigeration evaporators, "RECOLD" looks towards the future with confidence. A new plant equipped for greater expansion and geared for mass production of "Recold" products is an important milestone in the progress of our organization.

Your continued acceptance of the "Recold" trade mark as a standard of quality will constantly be merited by continued new developments in our industry. Look for more and better things from "Recold."

"Remember if it's a Recold—it's Right."

RECOLD WATER DEFROST  
Evaporator for low temperature applications.



**REFRIGERATION  
ENGINEERING, INC.**

7250 East Slauson Ave., Los Angeles 22, Calif.

## INSIDE...is what counts!

Strange as it may seem . . . your breakfast egg can tell you something about selling refrigerators.

Just from the looks of the shell . . . you can't tell the quality of what you're going to find inside!

And isn't this just about the truth, too, when it comes to refrigerators? Once you get past the obvious selling "features" . . . then what?

It's the "hidden values" that make the real difference in the Kelvinator. Because of them . . . the Kelvinator name holds the respect of the buying public and appliance men alike. These "hidden values" make the vital difference that means longer life and greater customer satisfaction over the years. They give a salesman the confidence in his product that helps him complete the sale. Yes, Kelvinator dependability . . . its trouble-free performance . . . are priceless assets to the salesman.

Sound engineering dictates bracing and cross-bracing Kelvinator's one-piece steel cabinet like a truss bridge. Infinite care assures the quality of the Permalux finish. It's white—and stays white! Resourceful design produces Kelvinator's "breather" space for 100% moisture-proof insulation. And the matchless Polarsphere unit stands alone on its perform-



ance. With power plus . . . sealed in steel . . . permanently lubricated . . . its record is trouble-free.

And *Retail-Minded* Kelvinator's Vocatior-in-Sales Program matches the great engineering in the Kelvinator product. It provides the best of product and sales training. And helps build a sound, aggressive retailing operation that will produce sales . . . tomorrow . . . and year after year.

*You build a future with* **Kelvinator**  
...THE MOST VALUABLE FRANCHISE IN THE APPLIANCE INDUSTRY

DIVISION OF NASH-KELVINATOR CORPORATION • DETROIT 32 • MICHIGAN

## Specialists Make Tour of Hotpoint Plants To Pick Up Servicing 'Know-How'

CHICAGO—Highlighted by the introduction of a new handbook written so that "a person new to the business can be a serviceman," eight regional product service specialists of Hotpoint, Inc. have just completed a 10-day training conference starting at Chicago with later sessions at Erie, Pa., Bridgeport, Conn., and Trenton, N. J.

Aimed at meeting the service needs of increasing production of all company lines, D. C. Marble, manager product service division, said that the handbook would spearhead "planning far ahead to see that service information is available in the field before the products are sold to consumers."

The conference began with a three-day session in Chicago where design and commercial engineers presented information on ranges, water heaters, dishwashers, and electric commercial cooking equipment. Moving to Erie, Pa., product men spent two days in the refrigerator unit and cabinet factories; two days at Bridgeport, Conn., studying "wringer type" washer and ironer developments; and two days at Trenton, N. J., where the new automatic clothes washer is in process. The 10-day course was concluded by a general conference at New York City.

According to Mr. Marble, the new handbook will be sold "at a nominal cost in order that this information can be made available to every Hotpoint dealer." This handbook is

written so that a person new in the business can get a complete picture of the functions of the various appliances and their parts. A detailed description of their construction, as pictured in a chart, in addition to service information, will offer a serviceman a chance to acquire the information to make adjustment and repair of appliances.

During the 10-day session, service specialists were given frequent opportunities to dismantle and reassemble all models under the supervision of design engineers. Provided with more than 100 wall charts of functional parts and the master product service handbook, the eight service specialists have been assigned to assist distributors in training servicemen for dealers.

Hotpoint's sales and advertising approach were tied in by a session on the company's kitchen installation program. The group was shown a series of charts for visual aid, and a new kitchen installation handbook. A presentation of charts on baking problems, showing actual size cakes and biscuits in full, natural color was also on the range section of the curriculum.

Product service specialists who attended the 10-day conference were: F. V. Leeds, New York City; A. L. Walker, Buffalo; R. C. Lange, Cleveland; R. K. Jackson, Chicago; F. W. Edwards, Dallas; E. L. Wilson, Atlanta; R. W. Cass, Los Angeles; and W. E. Garrison, San Francisco, Calif.

## Retail Dealers Protest Furniture Mart Space Was Closed Too Early

CHICAGO—Strongly-worded protests from retail dealers who complained that they arrived here for the second week of the winter furniture market to find many spaces closed have prompted the American Furniture Mart to ask manufacturers and exhibitors for closer cooperation next July.

Lawrence H. Whiting, president of the Mart, said letters were being sent Mart tenants to emphasize the importance of accommodating buyers who attend the market during the second week.

Out-of-town buyers had been urged by the Mart, market groups, and trade associations to come the second week because of the inconveniences caused past first-week attendants due to congested hotel and transportation facilities.

While acknowledging that this campaign had been "a huge success," the National Retail Furniture Association charged in an open letter to the Wholesale Salesmen's Association that "the results were bitterly disappointing to many." The letter was signed by Roscoe R. Rau, executive vice president of NRFA, one of the groups that had cooperated in the "second week" campaign.

"Many a buyer went back home with a sore spot in his heart and a firm mental reservation never again to be such a sucker," the letter said in part. "For on arrival Monday and Tuesday of the second week he found spaces closed and wholesale men representing lines from which he had been buying had left town, some as early as Thursday of the first week."

"Many salesmen were embarrassed even before they left Chicago, knowing they were leaving dealers behind. You will admit the visitor was justified in feeling sore, for feeling something had been 'put over on him.'

"Furniture manufacturers alone were not to blame. Floor coverings lines and some major bedding exhibitors were equally guilty."

"What to do? Are we to have a one- or two-week market? Must we go back to the four markets per year problem?"

Similar complaints were made by others. Two West Coast stores suggested that manufacturers who do not intend to be present the second week should advise buyers so they can attend the first week.

One explanation advanced was that many salesmen are required to represent more than one line and attend more than one market, for financial reasons.

Wallace O. Ollman, general manager of the Merchandise Mart, said that, as far as he knew, no exhibit in that building was closed during the second week.

## Moran Named President Of Toledo Dealer Assn.

TOLEDO—Members of the Toledo Appliance Dealers Association, at their first annual supper celebration held at the Willard Hotel here, elected the following officers for the ensuing year:

President, Frank Moran of the Ohio Appliance Co.; vice president, Henry Torrence of Torrence Radio; treasurer, Davis Warsell of Gross Electric; and secretary, Norman Oakes of Oakes Radio.

The board of directors chosen consists of the officers and Cornelius Chew of Chew Appliances; Frank Rogers of Rogers Appliance; Charles Chamber of the Fix It Shop; W. W. Graville of the Graville Furniture Co.; and James A. Norton of the Norton Appliance Co.

Mr. Moran at the end of the celebration reported the general program for 1947 would be "first of all to protect both appliance dealer and consumer from the evil fraudulent, unethical, and misleading advertising. Second, by any legal or lawful means to uphold and defend the Fair Trade Law of the State of Ohio, and third, to encourage a greater membership by showing all members and dealers the practical advantage of fair trade."

### Smith Opens Store In Reading

READING, Pa.—Ted Smith, veteran Reading appliance dealer, has opened his new store at 205 North Ninth St., with a sales and service force of 15 persons.

## CIO Electrical Workers-- R.E.M.A. To Meet--

(Concluded from Page 1, Column 5) representing approximately 125,000 electrical workers, met with officials of G-E.

Other than wage increases, the union indicated it would ask the inauguration of a health and welfare program with the company paying all costs and both union and management participating in the administration of the funds. It was also stated that this plan would include hospitalization insurance, severance pay for workers laid off, retirement pensions, improved vacation plans, full payment for holidays, and a union shop.

NEWS readers will recall these negotiations are in line with conferences held here last month when union officials made a united appeal that industry pay increased wages to help workers meet the rising cost of living.

## Earnings:

### Brunner Mfg. Report Shows Income Doubled Over '45

UTICA, N. Y.—The Brunner Mfg. Co. here, maker of condensing units, compressors, and room coolers, reported a net income for the year ending Nov. 30, 1946, of \$208,839. This equalled \$1.89 per share on 100,000 common shares.

In 1945, Brunner had a net income of \$88,820, or 81 cents per share on 84,996 common shares.

### Yearly Net at Kold-Hold Mfg. Co. Exceeds \$130,000

LANSING, Mich.—The Kold-Hold Mfg. Co. here, has reported a net income of \$130,787, or 52 cents a share, for the year ending Sept. 30, 1946. This compares with a net income of \$22,093, or 9 cents per share for the 11 months ending Aug. 31, 1945.

### Hajoca's Peak Earnings Help To Reduce Bank Loans

PHILADELPHIA—Hajoca Corp. reported a net income of \$1,122,346 on sales of \$23,154,798 for 1946. Similar figures for 1945 were \$215,747 and \$14,685,911 respectively.

A. Brecht, president, reported that the sales and income figures set an all time high for the company, allowing it to reduce bank loans from \$750,000 to \$450,000.

(Concluded from Page 1, Column 5) sent to the membership, Mr. Hanson states).

Following is the proposed plan for the membership meeting on April 10:

**10 a.m.**

Annual report of the president, H. F. Spoehr.

Treasurer's report, Guy J. Henry.

"Our Public Relations Program," (illustrated presentation), Theodore Sills, Sills, Inc.

Announcement of the 5th All-Industry Refrigeration and Air Conditioning Exposition, F. J. Hood.

**12:30 p.m.—Luncheon**

"The Value and Use of Commercial Standards," F. W. Reynolds, Acting Chief, Division of Trade Standards, National Bureau of Standards.

**2 p.m.**

Afternoon session theme—Merchandising and Marketing.

"Utilizing a Market Survey," Bert Hotvedt, Blackhawk Mfg. Co.

Paper—"What About Sales Helps," speaker to be announced later.

"How to Plan Sales Meetings," W. W. Kemphert, Worthington Pump & Machinery Corp.

Paper "Let's Talk About Exports," speaker to be announced later.

Panel Discussion Period.

Announcement of the Election of 1947-1948 officers.

Remark from President-Elect.

## F. L. Jacobs Negotiates

### New \$5,500,000 Loan

DETROIT—Rex C. Jacobs, president of the F. L. Jacobs Co., this city, announced completion of negotiations Feb. 18 with the National Bank of Detroit and the Reconstruction Finance Corp. whereby \$5,500,000 in loans as well as credits will become available to the company.

This consists of a secured term loan of \$3,500,000 from The National Bank of Detroit for a period of two and one-half years, in which the RFC has agreed to participate if requested by the bank. Proceeds of the loan will be used in part for paying off a present bank loan of \$2,000,000 due Oct. 1, 1947.

The National Bank of Detroit has also continued available to the company \$2,000,000 in short-term credit for current operating requirements Mr. Jacobs said.

The Jacobs company, which has 11 plants in three states, is a manufacturer of automotive parts and home appliances.

## BE APPLIANCE-WISE!

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PLYMOUTH • MICHIGAN  
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Among the wide range of Products we make are refrigerator shelves, over racks, display stands, truck radiator guards, protecting screens, frames, coined and formed rods, horn rings, truss rods.

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### A PROGRESSIVE POLICY

that benefits seller and user.

In presenting Model 100 CD, Merchant & Evans Co., follows its established practice of long controlled field test, ironing out all 'bugs' before release to users. Model 100 CD, with totally enclosed motor, provides large cooling capacity in an exceptionally compact unit. Air flow is modulated and precisely controlled creating a high relative humidity with a dry, sanitary cabinet. Spot temperatures are always uniform and excessive dehydration is avoided. Heat exchanger supplied as standard in all models. ASRE Ratings are thoroughly reliable.

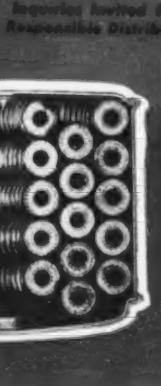
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SHOWING SIMPLE, STURDY CONSTRUCTION OF MODEL 100 CD



Inquiries invited from Responsible Distributors

# RAYTHEON

## REFRIGERATOR FAN MOTORS ARE BACK...

### DELIVERY MAY FIRST!



#### Raytheon Refrigerator Fan Motors Lead These 5 Ways:

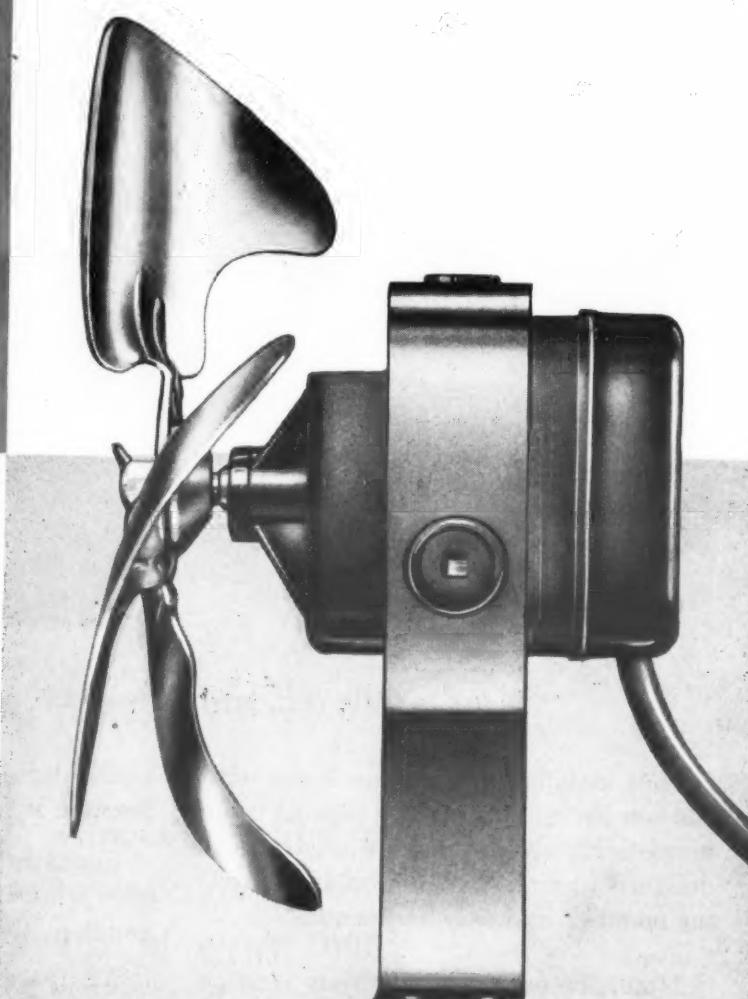
- Balanced mechanical design
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**Russell  
Electric Company . . .**

#### YOUR LONG WAIT IS ENDED

Raytheon Refrigerator Fan Motors are now in production again. Available in two *new* types—equipped with either a 6-bladed fan  $7\frac{3}{4}$  inches in diameter—or with a 3-bladed fan  $8\frac{3}{4}$  inches in diameter, these precision-engineered refrigerator fans for compressor units are designed specifically for longer life and highest efficiency.

Several hundred thousand Raytheon Refrigerator Fan Motors have been in constant service for more than 10 years—establishing new records of performance and reliability. Consult us now regarding your requirements.



**340 West Huron St., Chicago, Ill.**

## Philco Income for 1946 Exceeds Previous Year Despite Losses During First 9 Months

PHILADELPHIA—Despite a reported loss for the first nine months of 1946, the Philco Corp. here ended the year with a net income even exceeding that reported in 1945, according to the *Wall Street Journal*.

With 1946 sales exceeding \$117 million, Philco is believed to have a net income approximating \$2.6 million, or \$1.80 per common share, the *Journal* said. Net income for 1945 was \$2.3 million, or \$1.73 per common share.

Philco's sales story is told in the quarterly reports. The company started out with a sluggish \$14.2 million sale in the first quarter, way below the 1945 figure for the same quarter.

During the second quarter, sales of \$22.8 million were reported. In the third quarter, \$35.3 million. And in the final quarter, \$45 million.

With the January volume hitting pretty close to \$15 million, sources close to the company predict 1947 sales to exceed \$125 million.

Though radios still make up the bulk of the Corporation's sales total, refrigerators and home freezers are coming up strong and are expected eventually to contribute as much to profits and volume as do radios.

Philco is now carrying orders for 400,000 refrigerators and 200,000 home freezers, the paper declared. The company is said to have production facilities sufficient to turn out 850,000 refrigerators and freezers annually.

Though Philco now only sells single-room coolers made for it by the York Corp., the firm intends to expand its air conditioning business through lower prices and increased production, it was stated.

During 1946, Philco is said to have sold 250,000 record-in-the-slot table phonograph-radio models. Sales of the console size combinations are expected to exceed any prewar year.

One combination set is reported to be worth more in profit and volume than 30 table sets valued at \$20.

## Dairy Group Postpones Exposition Until 1948

WASHINGTON, D. C.—Dairy Industries Supply Association voted at its recent 28th annual business meeting not to hold a Dairy Industries Exposition in 1947, but to hold an "unlimited one" in 1948.

The fact that Atlantic City alone has facilities available in October for both exposition and housing was given as the reason for not holding a 1947 show. However, the DISA says it will collaborate with the processor associations in any plans for a 1947 convention.

## Liquid Carbonic Corp. Report Shows Net Profit of \$272,587

CHICAGO—Liquid Carbonic Corp. here has reported a net profit of \$272,587, or 29 cents per share for the December quarter of 1946.

Net sales for the quarter were \$7,086,539, contrasted with \$4,338,014 for the same 1945 period.

## Hussmann '46 Profit Statement Reaches Total of \$1,003,369

ST. LOUIS—Hussmann-Ligonier Co. reports a net profit of \$1,003,369 equal to \$5.42 per common share for 1946. This compares to a net profit of \$298,161, or \$1.46 per common share in 1945.

Net sales in 1946 were \$9,853,263, compared to \$5,763,918 in 1945, the report indicated.

## Davison Chemical Six-Month Earnings Drop Below '45 Level

BALTIMORE—Davison Chemical Corp. and subsidiaries report a net income of \$262,000, representing 51 cents per share for six months ending Dec. 31. This is compared to a net income of \$342,002, or 67 cents per share during the same period in 1945.

Net income for the final quarter of 1946 was \$326,000 equal to 63 cents a share, compared to a net loss of \$64,000 for the quarter ended Sept. 30, 1946.

## Voluntary Plan of Steel Allocation Scheduled To Replace Present Method

WASHINGTON, D. C.—A new steel distribution plan for housing is scheduled to replace present government controls March 31, it was announced here after a conference of Civilian Production Administration officials with the Office of the Housing Expediter.

According to the plan, all mills will voluntarily share in the allocation of steel to meet the requirements for each quarter. CPA announced that the required supply of steel products for the second quarter is set at 304,000 tons as compared with 395,000 tons in the first quarter. Excepting sinks and under cabinets all housing products now on the certification list would be included in the new distribution plan.

All mills will be expected to contribute their share of steel necessary for the second quarter, CPA warned. Any failing to do so would be subject to the agency's directive action, which, in the case of housing materials, extends through June 30, officials said.

Steel needed for prefabricated houses in the second quarter would come to 40,000 tons, and the amount specified for the first quarter is 17,300.

## Surplus Sales:

### Bidding In Charlotte, N. C. Set To Close February 27

CHARLOTTE, N. C.—Government surplus refrigeration equipment is being offered to all buyers in a sealed bid sale now under way here. The sale, being conducted by the War Assets Administration, closes Feb. 27.

Equipment offered includes a counter type soda fountain, a walk-in refrigerator, 30 Cordley inverted bottle type water coolers, 281 new reach-in type Hill ice chests, and unspecified numbers of electric refrigerators and Frick compressors.

### Boston Lot Includes Several Commercial Items

BOSTON—A sealed bid sale of government surplus refrigeration and air conditioning equipment is now being conducted by the local regional office of the War Assets Administration. Closing date for bids is Feb. 26.

Being offered are: one 6 ft. counter beverage cooler, one Sterling air conditioning unit, an unspecified number of Electric Oak, General Electric, and general storage refrigerators, a 45 cu. ft. and a 42-cu. ft. "GM" steel refrigerator, a new compressor pump, 18 electric drinking fountains, and some electric water coolers.

### Bids Stay Open Until March 10 In Nashville

NASHVILLE, Tenn.—A Copeland electric refrigerator of 20-cu. ft. capacity and a piston type, belt driven Worthington Pump are being offered for sale by the Nashville office of the War Assets Administration.

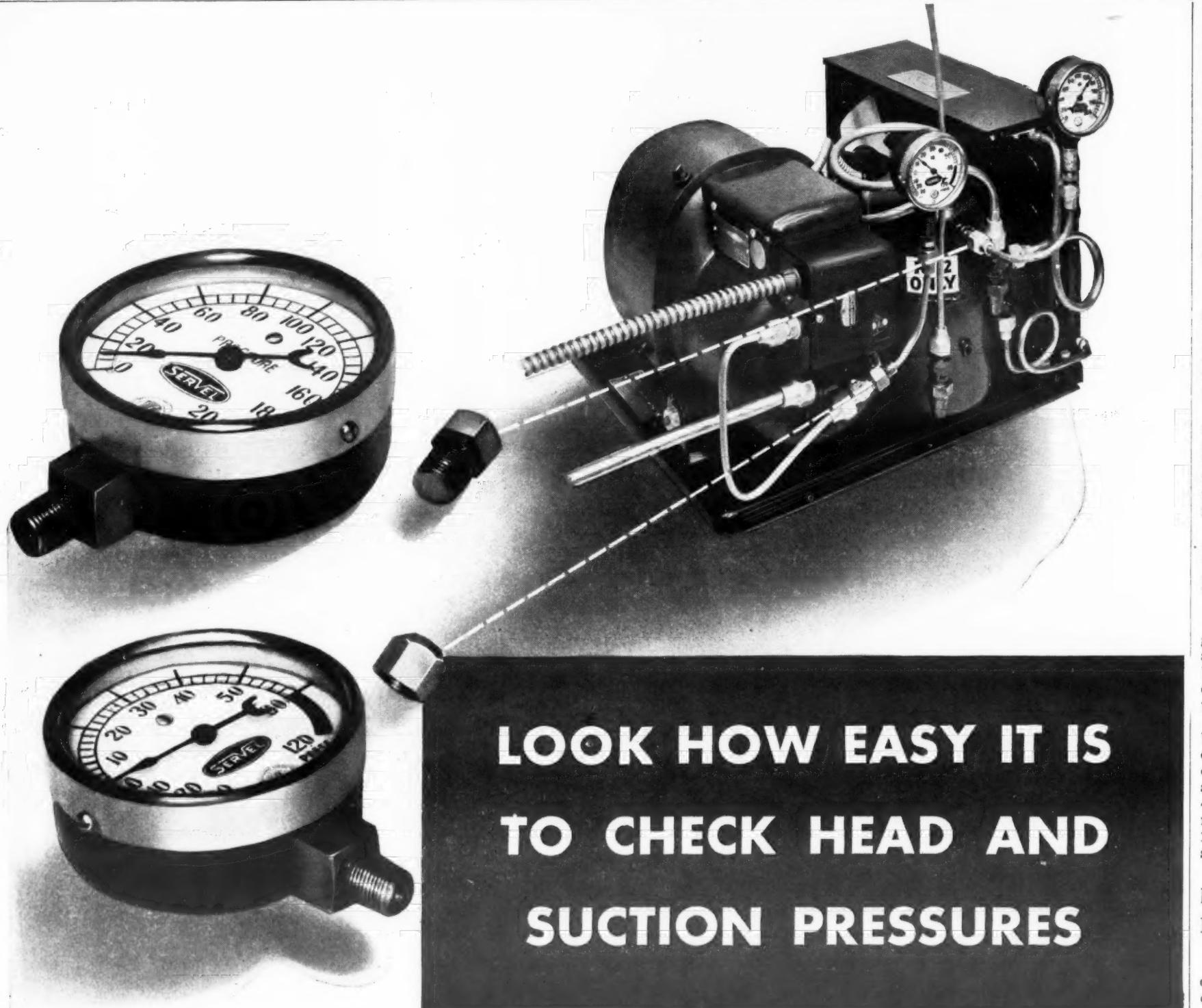
The equipment will be sold on competitive bid. Closing date for bids has been set at March 10.

### Colorado Locker Association Will Seek Regulating Bill

DENVER—Enactment of a law to regulate the frozen food locker plant industry will be sought during the 1947 session of the Colorado Legislature, states H. L. Titus of Greeley, chairman of the legislative committee of the Colorado Frozen Foods Locker Association.

Mr. Titus said the proposed statute would set forth minimum operating standards, make provisions for sanitary requirements, and responsibility of locker plant operators.

"Although our industry is relatively young, we are aware of our responsibilities," he said, "and it is our purpose to draw up a law that will protect the users of locker plant facilities as well as be fair to the industry."



Service installation costs are lower with the new Servel Supermetics because these hermetically sealed units are scientifically designed to make installation and checking as quick and easy as possible.

Note, for example, how easy it is to attach a head pressure gauge. In the upper half of the liquid receiver, there's a spud gauge connection. You simply remove the threaded hex-head plug and screw in the pressure gauge. A tiny "bleeder" hole in the connection supplies pressure for your gauge reading and pre-

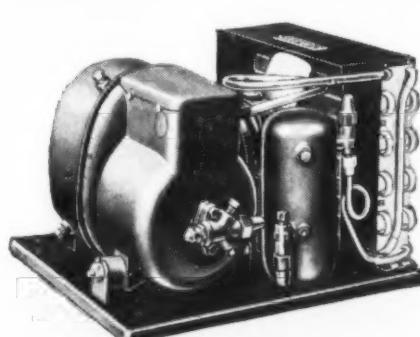
vents the escape of more than a small amount of the refrigerant gas.

Similarly, a check of the suction pressure is readily obtained by connecting a gauge to the suction shut-off valve.

Many such time- and effort-saving "super-features" have been incorporated into the design of this modern condensing unit. You'll find a complete description of these hermetically sealed units in a new booklet, "Servel Supermetics." Write for your free copy today. Address Servel, Inc., Division RN, Evansville 20, Indiana.

**\*Servel's new "Supermetics" condensing units serve dealers and fixture manufacturers in every vital field**

1. STORE FIXTURES
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*COLD FACTS*  
*you should KNOW about*

# COMMERCIAL REFRIGERATION FINANCING

Recent national developments encourage the prediction that 1947 will witness a tremendous increase in the production and sales of commercial refrigeration equipment.

To obtain his proper share of the increased volume, every distributor and dealer must be in a position to *finance* a large part of his sales and installations. At a conservative estimate 50% of sales will be on a time payment basis.

To meet every financing requirement the Commercial Refrigeration Industry has Approved Plans, administered through an organization thoroughly experienced in this specialized branch of sales financing.

The requirements as to amount of down payments and monthly payments at various maturities, have been soundly worked out and have been approved by the Commercial Refrigeration Manufacturers Association, representing 80% of U. S. production.

In all time sales made through these Industry Plans, the seller immediately receives the full sales price.

Every established manufacturer, distributor and dealer, not at present using or thoroughly informed about these Industry Plans is urged to investigate it now. Application forms and sales forms may be obtained from any of more than 300 Commercial Credit offices throughout the country.

**COMMERCIAL CREDIT CORPORATION**

## Simpson Opens NERA Membership Drive In Michigan, Urges Strengthening of Dealers

DETROIT—The current nationwide membership drive being conducted by the National Electrical Retailers Association reached into Michigan last week when a meeting was held here to open the state campaign.

About 40 retailers, most of them from Detroit, assembled in the service building auditorium of the Detroit Edison Co. to hear Clifford C. Simpson, NERA managing director, outline the association's 1947 program of activities and ask for their support.

John H. Wernicke, of the Geo. W. Hubbard Hardware Co., Flint, the association's first state chairman for Michigan, was in charge of arrangements and presided. He was assisted by Lyle A. Devlin, newly-appointed regional field director. The two will direct the state drive.

After describing the electrical industry as a five-link chain composed of manufacturer, wholesaler, retailer, contractor, and electric company, Mr. Simpson said the all-important middle link—the retailer—"has been weak for sometime and needs strengthening."

Why, Mr. Simpson asked, hasn't there been more promotion of the

sale of appliances? He asserted that the electrical industry "has not done the best job," as evidenced by "countless" homes not equipped with many appliances.

He recalled that NERA was formed when it was discovered that not a single retail outlet was represented at a meeting in Chicago in 1944 to consider the postwar fate of the industry.

In outlining the organizational set-up of the association, Mr. Simpson explained that it is broken down into 12 regional districts identical with those of the Federal Reserve System. Governors of these districts, he continued, make up NERA's board of governors.

He pointed out that the organization is further broken down into state chairmen, division chairmen, and local chairman. Local chairmen work under the divisional chairmen, who in turn are under the supervision of the state chairman, it was noted.

Answering questions, Mr. Simpson explained that NERA is a direct-membership association and does not attempt to organize local chapters because of a belief that they have

a tendency "to wander away from the purpose of associations." He said the local chairman-local committee arrangement approaches the semblance of a local association without actually being one.

Mr. Simpson emphasized, however, that NERA is not opposed to local associations formed on the initiative of the retailers themselves. He said that wherever this situation exists, NERA will work with and help guide such groups.

As a sample of this arrangement, he cited the association of Flint retailers with which NERA is cooperating. Current membership of this group was reported as 28.

Present membership fee of the national group is \$25 a year. It is expected that later the fee will be graduated on a volume basis.

During his talk, Mr. Simpson hit the high spots of NERA's 1947 program. He said this program is spearheaded by the project known as "Functional 40 in '47," meaning NERA will strive to secure a functional discount of not less than 40%.

This goal is justified, he declared, because the retailer's expenses have gone up over prewar levels, the same as those of the manufacturer and wholesaler, while the discount percentage has decreased.

Other phases of NERA's program were discussed. The full program was reviewed in the Jan. 27 issue of the NEWS.

## A New G-E School Gets Under Way



Facing one of the early classes at G-E's new training school for distributors is W. F. R. Karsten, sales manager of the industrial, marine, and contractor equipment division of the firm's air conditioning department. Covering three-week periods, the refresher courses furnish up-to-date information on air conditioning and refrigeration.

### Ignoring CPA Construction Ban Brings Retailer Fine of \$50

DETROIT—Because he built an electrical appliance store here after the Civilian Production Administration had ordered him to cease construction, Sidney S. Hough was fined \$50 in Federal Court recently. Mr. Hough had pleaded guilty to CPA charges.

## Distributors' Engineers Take Refresher Courses

BLOOMFIELD, N. J.—Two training schools, one offering courses in air conditioning and one covering commercial refrigeration, have been inaugurated by the General Electric Co.'s Air Conditioning Department in Bloomfield to bring engineers of the company's distributors up-to-date on advanced refrigeration and air conditioning techniques through intensive three week courses.

The schools are designed to serve not only as a brush-up course for the more experienced field engineers, but also as a background to practical work for the younger engineers in the distributor organization.

In class rooms equipped with a wide variety of the most modern types of equipment—the students put into practice under actual working conditions the theory covered in the class study.

Both the air conditioning and the refrigeration courses cover fundamentals, general orientation and review of equipment, selection and application of equipment, and system design.

In order to reach representatives of General Electric distributors throughout the country, the courses will be alternated continuously through the year.

## Refrigeration Equipment Firm Incorporates In N.Y.

CANTON, N. Y.—A certificate of incorporation has been filed in the county clerk's office for Gouverneur Community Ice Cream Co., 48 Depot St., Gouverneur, N. Y.

The firm is authorized to manufacture and sell ice, ice cream, dairy products, foods, frozen foods and fruits, and handle refrigeration service, freezing and refrigeration equipment, and other household and commercial equipment.

The company is authorized to issue up to 1,000 shares of stock. Incorporators are James J. Rubar, Margaret B. Rubar, and Elizabeth L. Bullard.



Five Sided Refrigerated Pure Virgin Copper Tank. Refrigerant lines soldered on five sides to copper tank and concealed in walls.

**NEW**

**saves  
space  
food  
profits  
ONLY COOLER  
OPERATED EITHER  
WET OR DRY!**



## Artkraft COMPLETE WITH MOTORS BEV-FOOD COMBINATION FOOD AND BEVERAGE COOLER

This self-contained "plug-in" unit engineered for outstanding performance in any type of store or institution is A MUST wherever foods or beverages are served. Can be used as both beverage cooler and food refrigerator. Has compartment for both wet or dry chilling of bottled and canned beverages. BEV-FOOD is the ONLY COOLER THAT CAN BE OPERATED WET OR DRY. Can be used entirely for dry refrigeration from bottom to top of each compartment. Top opening prevents spill-out of cold.

DIVISION OF ST. NICK'S WORKSHOP INC. CENTRAL DISTRICT CHICAGO DISTRIBUTOR

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AND ASSOCIATES  
2421 WEST DIVISION STREET  
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### INCREASE PROFITS with this LOCKER LINE

For more profits, sell A-S-E Froz-N-Food Lockers. Note these features:

- Glide-easy drawer action
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- Rich two-tone finish
- Drawer units are shipped factory assembled



A-S-E Froz-N-Food Lockers have earned the nation-wide preference of locker users . . . they're the attractive lockers that mean profits for you. Write today for additional information.

**ALL-STEEL EQUIPMENT, INC.**  
450 GRIFFITH AVENUE AURORA, IL

# Refrigeration Anesthesia Proves Beneficial, Safe for Amputations, Doctors Report

CHICAGO—"Experience to date continues to confirm the safety and benefit of refrigeration anesthesia," Drs. Lyman W. Crossman and Frederick M. Allen declared in a report appearing recently in the Journal of the American Medical Association.

"Not only is this anesthesia by brief chilling advantageous for orthopedic and reconstructive operations, but also successful healing has been reported in limbs which have been refrigerated for a number of days or weeks."

"Besides clinching the harmlessness of the low temperature, these observations point the way to new developments in surgery," the doctors asserted.

They pointed out in their report that "cold has the unique ability to inhibit simultaneously pain, shock, infection, toxic absorption, and tissue devitalization."

"Speaking always of emergency treatments at temperatures above freezing," they said, "we can state the general rule that the lower the temperature, the greater the effect."

Drs. Crossman and Allen indicated that burns need the effects that cold can give and stated that the benefits are "dramatic."

The doctors cited several ways in which the preservative qualities of refrigeration have aided surgeons in saving and prolonging life.

## Preserves Dead Limbs

One is the preservation of dead limbs which for some reason cannot be amputated but which would have a rapidly fatal poisonous effect on the rest of the body if allowed to decompose. This type of preservation has been effective for two weeks and upward, they said.

Another is the preservation of infected or injured limbs. They cited instances where gangrenous limbs were packed in ice or ice bags. Here refrigeration made possible not only a safe postponement of the operation for several days but even an improvement in the patient's general condition which lessened the risks of operating.

They averred that radical chilling contributes to the saving of limbs in less extreme cases by directly checking the production of poisons and their killing action on the tissues and

by gaining time for the administration of drugs or other means of cure.

A second benefit is the development of new circulation channels by the blood vessels during the time gained by the use of refrigeration. This permits amputation at a lower level on the limb, which, in turn, gives the patient greater walking and earning ability upon recovery, they stated.

In some cases, refrigeration has been known to prevent amputation altogether. A case was cited where a man, in addition to other injuries, had a hand badly mangled in an explosion. With the use of refrigeration and proper treatment, the hand was not only saved from amputation, but mended to such an extent that its use was largely restored.

Besides helping to prevent or minimize amputation, refrigeration can preserve a severed or nearly severed limb for several hours until a surgeon

can restore it, Drs. Crossman and Allen indicated.

The reduction or near suspension of the processes of growth and destruction of tissues within a severed limb through cold can enable limbs to survive without a blood supply for a surgically important period, they stated.

## Severed Finger Chilled

They told of a case where a man's finger hung by a shred of skin. Under the doctor's phone instruction, the digit was kept chilled until the patient entered the hospital and could have it stitched back in place.

After the operation, the finger was kept under refrigeration for several days. The temperature was raised slightly day by day as nutrition of the severed part improved.

Although there is yet no clinical evidence to back them up, the doctors believe that severed limbs can be kept

for 24 hours under refrigeration. It has been done with dogs, as reported Feb. 11, 1946 in the NEWS.

With hemorrhaged limbs, refrigeration permits application of a tourniquet for much longer periods and with much less harm to the tissues, they declared.

"It is becoming accepted that every asphyxiated limb should be kept at the lowest possible temperature short of freezing," they said.

Though there are many cases when refrigeration is helpful in surgery, it is not universally so, they warned. They found that reduced temperature is not helpful in the sense of either prophylaxis or therapy for shock from intestinal wounds. They did not recommend it for abdominal operations.

## Moffat Gets Pacific Coast Westinghouse Post

SAN FRANCISCO—J. J. Moffatt, Pacific Coast manager for the Westinghouse Electric Appliance division, has announced the appointment of Harold E. Hugo as sales development manager for the district with headquarters at 1355 Market St., San Francisco.

## New Order Limits Field For Priority Ratings

WASHINGTON, D. C.—Following its tightening in the issuance of CC priority ratings early in January, the Civilian Production Administration on Feb. 13 announced the revocation of its delegation of authority to assign MM (military) ratings and also adjusted its criteria for issuance of future CC ratings to cover military and Veterans' Administration needs.

Priorities Regulation 28 now states that CC ratings will be issued in cases where an essential item is needed in an emergency by the Army, Navy, Maritime Commission, the Veterans' Administration, or the Atomic Energy Commission, to meet the requirements of their most urgent projects. In these cases a recommendation by designated officials in the Washington headquarters of these agencies is required.

The amendments to PR-28 also include some changes for clarification. They now state that CC ratings may be granted: Where an item is needed to maintain or provide essential community utility services or to meet an existing emergency.

## SAVE YOUR TIME BUY BY MAIL

New York dealer writes:

"I assure you that I have never had any business dealing with any other concern that has given me better service than Airo has."

"I have been more than pleased with your prompt attention."

Air Conditioning and  
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Parts - Tools - Supplies  
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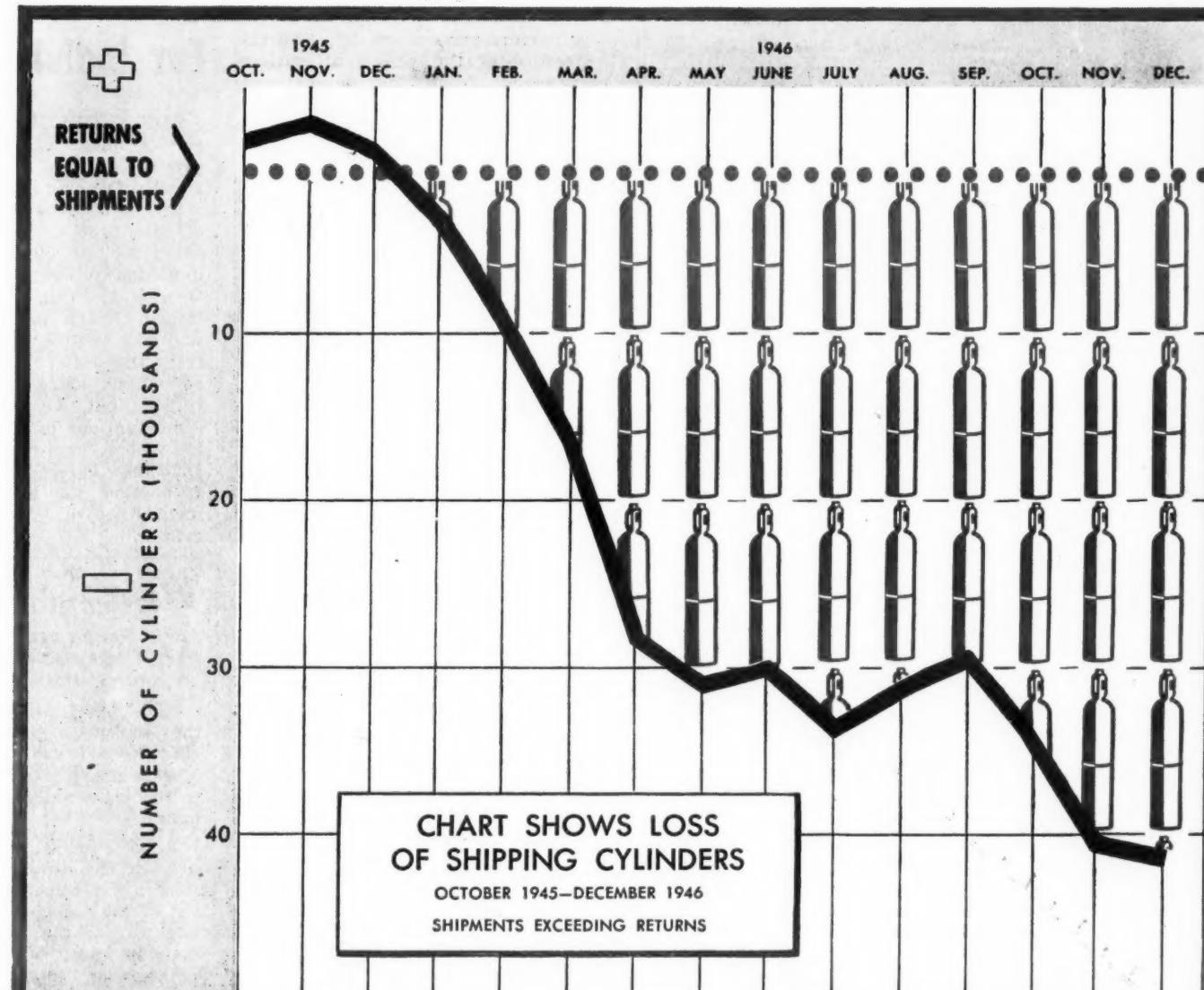
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Plan your automatic refrigeration installations for a triple advantage: Proved performance, low first cost, low maintenance cost. LIPMAN machines for dependable service in any field of commercial refrigeration are the result of more than a quarter century of manufacturing know-how. Let LIPMAN serve your needs profitably!  
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AUTOMATIC REFRIGERATION



## YOUR SUPPLY OF "FREON" REFRIGERANTS THREATENED BY CYLINDER SHORTAGE!

The chart above carries a warning. It proves non-return of empty cylinders seriously endangers delivery of "Freon" refrigerants.

Dotted horizontal line at the top of the graph indicates normal return of cylinders to the "Freon" plants. The downward line shows that throughout 1946 (with exception of

June, August and September) far more cylinders were shipped than were returned. The accumulative loss now totals more than 40,000 cylinders!

These cylinders are urgently needed. To continue supplying "Freon" and to meet spring and summer demands, every empty cylinder must

be used. Enough new cylinders aren't available. Returns must do the job.

Today—please check all cylinders you have. Return the empties at once. Your cooperation will help ease the situation... aid in making it possible to ship "Freon" promptly. Kinetic Chemicals, Inc., Tenth and Market Sts., Wilmington 98, Del.

## RETURN EMPTY "FREON" CYLINDERS NOW!

Ship empties via freight collect to:

Kinetic Chemicals, Inc.  
Carney's Point  
New Jersey

**KINETIC**  
**FREON**  
REG. U. S. PAT. OFF.  
safe refrigerants  
FREON is KINETIC'S REGISTERED TRADE MARK FOR  
ITS FLUORINE REFRIGERANTS AND PROPELLENTS.

**SCHNACKE**  
AIR CONDITIONING  
AND  
REFRIGERATION  
CONDENSING UNITS

**Featuring:**  
Refrigerant-cooled,  
Replaceable, Steel  
Cylinder Sleeves

(Cool gas from the evaporator cools the cylinders, resulting in less wear and greater refrigerating capacity.)

**Force Feed Lubrication**

(Positive rotary pumps force oil to shaft seal, bearings, and all moving parts.)

**All Vital Service  
Parts Interchangeable  
In All 29 Models**

You get these—and many other advanced features—in SCHNACKE Condensing Units.



**"T" Model, 5 to 15 H. P.**

Illustrated above is the "T" Model, ranging from 5 H. P. low temperature to 15 H. P. Air Conditioning. In the SCHNACKE line there are 29 models covering the full range of high and low temperatures from 5 to 50 H. P.

Engineering data sent promptly upon request from engineers, contractors, dealers, and distributors.

**SCHNACKE, INC.**

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The Streamliner Way!**

. . . a complete set of books in ONE! Just the thing for small business firms. Covers everything. Eliminates guesswork. Complete instructions included. Send copy of Order NOW! Prepaid \$5.00.

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they GRIP**

When you specify a Grand Rapids Brass Company lock . . . no matter what the size or what the job . . . you provide the most dependable, most positive automatic trip lock available. And you reap the rewards of OUR superior design and engineering . . . in the form of life-long customer satisfaction with YOUR product. You can always trust your good name to the performance of Grand Rapids Brass Company locks and hinges.

by America's Quality Manufacturers  
of Commercial Refrigeration Hardware



**Grand Rapids Brass Company**  
Makers of Dependable Refrigerator Hardware for over 40 Years  
Grand Rapids 1, Michigan

**CPA Allows Construction  
Of 2 New Locker Plants**

WASHINGTON, D. C.—Construction of two frozen food locker plants and an addition to air conditioning equipment fabricating facilities were authorized by the Civilian Production Administration recently.

William Strehlow of Wasau, Wis., was allowed to build a \$2,740 locker plant there, while the Pulaski-Alexander Co-op. of Mounds, Ill., was granted permission to build a \$11,000 plant.

The Bahnsen Co. of Winston-Salem, N. C., was authorized an addition to its existing building for the production of air conditioning equipment to cost \$12,000.

**Bulletin Carries Data  
On Dorex Type G Panels**

NEW YORK CITY—Complete data on the design, construction, function, and applications of Dorex activated carbon air recovery panel is contained in Bulletin 106-A, a new publication of the W. B. Connor Engineering Corp. here.

Type G Dorex panels, states the booklet, are available in standard sizes conforming to commercial air filter dimensions and can be had with from one to three rows of perforated, carbon-filled tubes and any one of four tube spacings.

A performance chart detailing the capacities of the panels at various resistances, fresh air percentages, and approximate hours of service life for each type and size of panel is included in the booklet.

**Inspector Finds New Display Case O.K.**



Wrapping and labeling of individual meat cuts on display in an open type self-service case in a Los Angeles market get a nod of approval from Dr. Martin D. Baum, City director of meat and milk inspection.

**Los Angeles Approves Open Type Cases  
For Individually Wrapped Meat Cuts**

LOS ANGELES—Refrigerated self-service meat cases have been approved by the Los Angeles City Health Department.

The new order will permit the use of open type refrigerated self-service cases for the display and selling of individually wrapped meat cuts, Dr. George N. Uhl, Los Angeles City Health Officer, announced. Consumers will now be able to select fresh meats from the variety of cuts wrapped in cellophane, sealed and labelled as to type of cut, weight, and price.

Regulations of the new meat service will be supervised by Dr. Martin D. Baum, Director of Meat and Milk Inspection for the Health Department, City of Los Angeles, Dr. Uhl said.

Requirements listed by Dr. Baum for the packaging of meat for sale in open refrigerated self-service cases are as follows:

1. Each piece of meat must be wrapped in cellophane that will permit air passage to prevent condensation, which sours meat.
2. Maintenance of refrigerator temperature not higher than 40° F.
3. An attendant in charge of the counter to watch for and replace broken packages.
4. A label inside each package stating the grade, weight, and price of the contents.
5. Each of the retail markets must package its own meat on its own premises.

**Worthington Shifts 6 Veteran Executives  
At Holyoke Works; Riedel, Neuhoff Promoted**

HOLYOKE, Mass.—Six changes in the executive functioning of the Holyoke Works, Worthington Pump & Machinery Corp., are announced by Herman J. Schorle, Works manager.

F. G. Riedel, formerly chief engineer of the air conditioning and refrigeration division and Works director of all research, was named chief engineer of the "Freon" compressor division and Justin Neuhoff was appointed chief engineer of the air conditioning and condensing units division in other changes.

In one of the changes, A. W. Soutter, formerly engineering assistant to the Works manager, was appointed purchasing engineer of the Works. In another, E. E. Foote, formerly purchasing agent, was named assistant to the purchasing engineer.

Two other appointments were those of O. J. Schorler, formerly chief engineer of the rock drill and air tool division, as engineering assistant to the Works manager, and of P. H. Nast as chief engineer of the division.

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## Direction 3 to VHP-1 Lists Criteria by Which CPA Approves Non-Housing Construction

### Only Change Allows Veterans Who Lease To Build or Alter Their Present Business Facilities

WASHINGTON, D. C.—The standards under which the Civilian Production Administration reviews applications for non-housing construction are contained in Direction 3 to Veterans' Housing Program Order 1 (VHP-1), issued Feb. 11.

This direction officially records the list of "criteria" on which CPA bases its approval or denial of applications under VHP-1. Although modified from time to time, these criteria have been in effect since they were first announced shortly after VHP-1 was put into effect last March 26.

The new direction makes only one important change in the standards CPA has been using in recent weeks. Under the so-called "veterans' criterion," veterans of World War II may now get approval to build or alter small commercial or industrial facilities (usually costing no more than \$10,000) which they will occupy under a five-year lease. Veterans may also get approval to alter space in a building which they will occupy under a lease for two years or more.

Previously under this criterion approval was given only to structures which were to be owned by the veterans. Whether owned or leased, the project must be reasonably essential.

No change has been made in the \$50 million weekly average within which CPA attempts to hold its approvals. Strict interpretation of the standards has resulted in approvals of only about \$40 million a week since Jan. 10, when the \$50 million goal was established. During the 19 weeks in which CPA aimed at holding non-housing construction authorizations to an average of \$35 million per week, careful interpretation held approvals within six-tenths of one per cent of the target.

CPA approves non-housing construction applications only when (1) they are essential and non-deferrable, or (2) necessary to alleviate or forestall an extreme and unusual hardship, or (3) when they will use little or no scarce building materials needed for the Veterans' Emergency Housing Program.

Some non-residential construction is not covered by the order. Such operations as the building of sidewalks, sewers, pipelines, dams, bridges, streets and highways are not restricted. In addition, VHP-1 provides exemptions for certain small jobs.

No authorization is necessary for a job amounting to \$1,000 or less than a hotel, a hospital, a commercial building, or a small industrial structure (10,000 sq. ft. of floor space or less); \$15,000 for an industrial structure with more than 10,000 sq. ft. of floor space; or \$200 per job on certain other structures.

Small job allowances of \$400 for a house and \$1,000 for an apartment house are also provided by the order. Applications for permission to do work in excess of these amounts are filed with the Federal Housing Ad-

ministration or the Federal Public Housing Authority under the Housing Permit Regulation of the Housing Expediter.

If a project covered by the order does not fall in one of these exempted classifications, CPA may approve it if it clearly comes under one of the following conditions:

#### A. ESSENTIALITY AND NON-DEFERRABILITY

1. *Critical Products.* It will maintain or increase production of materials or products considered by CPA to be in critically short supply. (A lumber mill would be in this classification.)

2. *Food and Other Agricultural Products.* It will maintain or increase the production or preservation of essential food or food products (a meat packing plant, for example).

3. *Public Health and Safety.* It will provide essential services vitally necessary to public health or safety, such as public utilities, fire stations, and hospitals, when there is or will be a serious shortage of the proposed service.

4. *Community Facilities.* It will provide a community facility, such as a church or store, where it is clearly shown that lack of the facility constitutes a severe and unreasonable hardship on the community to be served.

5. *Primary and Secondary Schools.* It will replace school facilities which are inadequate or unsafe, in areas where other similar schools within a reasonable distance are overcrowded.

6. *Veterans' Educational Program.* It will provide class rooms, laboratories, libraries, shops, or other educational facilities which are indispensable for the veterans' educational program under the GI Bill of Rights.

7. *Maintenance and Repair.* It will provide minimum repairs or maintenance work necessary to keep a building in use or to prevent serious damage to the structure.

8. *Veterans.* It is an application for a small commercial or industrial facility of a reasonably essential nature owned more than 50% by World War II veterans or leased to such veterans, and the cost does not exceed approximately \$10,000.

#### B. HARDSHIP CASES

The construction is necessary to alleviate or forestall severe and unusual hardship. This hardship might be caused by loss of former facilities through fire or eviction, by commitments for purchasing materials made before VHP-1 went into effect on March 26, 1946, or by serious industrial unemployment in the community.

#### C. IMPACT ON VETERANS' HOUSING

It will not use appreciable quantities of scarce building materials needed by the Veterans' Emergency Housing Program.

## To the Manufacturer

**Sales and Sales Promotion is Our Business.**  
We represent you to the Refrigerator Distributor and Dealer, Ice Cream Mfrs., Frozen Food Distributors, Chain Stores, Kitchen, Restaurant, and Hotel Supply Houses.

Our sales and service staff are experienced field men, they cooperate and train dealer salesmen.

We sell to Wholesalers Only.

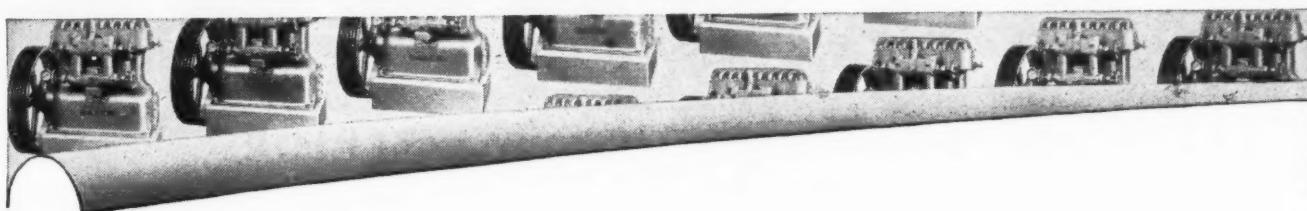
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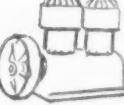
We have offices in Philadelphia, New York, Buffalo and Boston.

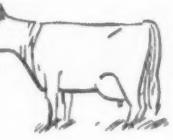
You may write us in strict confidence for further details.  
Financial and trade references gladly supplied.

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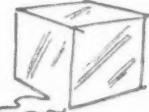
Air Conditioning & Refrigeration News



The refrigeration compressor  is as important

as the cow  in supplying pure milk  to your

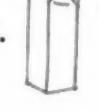
baby. After milking  it must be cooled with-

in one hour.  The dairy plant cools  it to

38° before heating  for pasteurization. Compressor

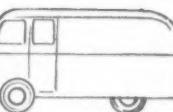
equipped milk coolers  lower the tempera-

ture  quickly below the safety zone (38°). Then

it is bottled  or put in cartons.  The paraffin-

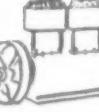
protected cartons  are sealed with cold. 

Refrigerated storage rooms are  compressor

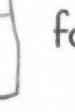
equipped. Delivery  trucks are refrigerated.

Special  bottle coolers are used by retailers.

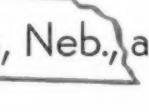
You  refrigerate milk in your kitchen. It takes

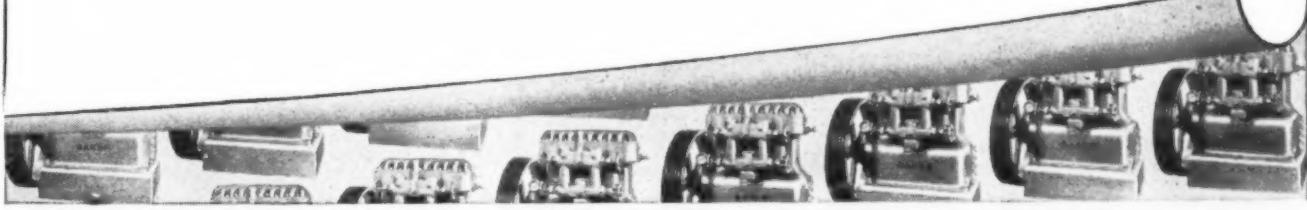
one cow  but many  compressors

to deliver pure milk.  Baker compressors 

help produce pure milk  for babies all over the

world.  Ice Machine Co., Inc.,

Omaha, Neb., and South Windham, Me.  



# REFRIGERATORS

**STAINLESS STEEL EXTERIOR & INTERIOR**  
Complete with Unit

**NEW 1947 MODELS**

Equipped with Peerless 6 Tray  
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The Number One Reach-In Refrigerator  
For Homes, Restaurants, Hotels, Stores  
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We also carry a complete line of Home  
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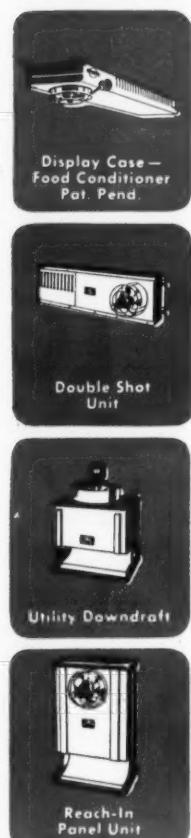


**GENERAL REFRIGERATORS CORP.**

678 BROADWAY NEW YORK 12, N. Y.  
STUYVESANT 9-1222

## THE MASTER SERVICE MANUALS - - -

— — — and other books of the Refrigeration Library are depended upon as textbooks in trade schools from coast to coast.  
**BUSINESS NEWS PUBLISHING CO., DETROIT**



only AMCOIL units do these DOUBLE JOBS

### AMCOIL DE LUXE FOOD CONDITIONER\*

*cools without  
dehydration*



Dealers! Distributors! Wholesalers! Here's your chance to double profits! Sell this double-duty AMCOIL Deluxe Food Conditioner. They want it: ideal conditions for food and other commodities. Only AMCOIL makes it: a unit which cools down to 36°F with humidities up to 85%. Now you can give it to them! In addition, you'll be selling a complete refrigeration system, except for condensing unit. It's completely assembled with temperature control, humidistat switches, expansion valve and a humidifier which makes up for any deficiency in moisture content and maintains relative high humidity. The AMCOIL Food Conditioner keeps food shrinkage losses to a minimum because it keeps humidity at predetermined levels.

Also available now is the Utility Food Conditioner, a moderately priced unit with fewer controls for cooling and preventing dehydration. Send for bulletin FC (Deluxe) and UDF (Utility).

### AMCOIL ZERO BREEZE LOW TEMP UNIT\*

Defrosts without defrosting—an accomplishment which makes more sales for you... No appreciable rise in temperature in cooler box during the defrosting period—think what that means to customers! The Low Temp unit is designed for use wherever frozen foods are preserved and stored at temperatures between 20° F and -20° F... think of the number of places you can sell it! Other Amcoil features which make Zero Breezes fast-movers: eye-catching streamline design... good-looking colors in baked enamel... enclosed valve and connections for safety... down draft through totally enclosed evaporator coil... air return on top of unit—no obstruction to stored products.

Our engineering department will make recommendations for your type of application on request. Send for bulletin ZB today!



*defrosts without  
defrosting*

**DEALERS, DISTRIBUTORS, WHOLESALERS! AMCOIL's National Advertising Helps You**

Advertising in these National consumer publications helps make your selling job easier.

## INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1) done so much better a job than we have of integrating themselves with their customers' lives will be back on the job again, and bravely.

Our "quickie" salesmen have often not even bothered to learn Spanish and Portuguese, whereas our European competitors have in contrast settled, married into, and assimilated themselves into the national societies of those countries they have invaded commercially.

To counteract these advantages which foreign competitors will again enjoy, American exporters will do well to take advantage of the good will conscientiously fostered by our State Department representatives and Department of Commerce attaches.

All export travelers should notify both groups as to their expected times of arrival and departure, and request assistance and audiences with the commercial factors in those countries who can make or break a business bid.

Coincidentally, these foreign representatives of our government should be consulted on advertising campaigns—so as to help you check on indigenous tastes and idioms, and so that you may share their advise on home-ground religious prejudices and social acceptances.

### No Bourgeoisie

Ambitious exporters should also take full cognizance of income statistics on these lands, so that they are not misled by the universal absence in Latin America of a well-defined middle class.

They should know that the extremes of poverty and wealth amongst our Good Neighbors are enormously accentuated—in comparison with English-speaking standards.

They should recognize, furthermore, the virile feudalism which permeates all Latin American economic structures.

Example: In Brazil (most favored, probably, of our Good Neighbors in terms of Lend-Lease and other give-away expenditures) almost two-thirds of the population receives a weekly income which is less than \$15 in our money terms.

Geography and climate must also be taken in account with regard to our exports to all Latin-American countries.

Below the equator, it goes without saying, the seasons are opposite to ours. But it's surprising how many American exporters appear to ignore that fact deliberately.

Not only must the exporter take into account such requisites as moisture-resistant packing materials, but he must also be prepared to accommodate his packaging to local transport facilities.

In Peru and Ecuador, most shipments will be transported on the backs of llamas or mules. Elsewhere human beasts of burden may carry the loads.

If trucking or railroad facilities may be happily available, the narrow local gauges must be accommodated.

### Play Up to the Women

Latin Americans place their women on a precipitous pedestal, too—thus confounding those sociology students who prate about the proclivities of North American men who spoil their women inordinately.

Belles "south of the Border" emphatically don't "tell" or toil. They spend. And they shop in streamlined emporiums which often would make their American counterparts gasp.

These fortunate women are accustomed to elegance. They are accustomed, too, to household servants in quantity and to a degree of servitude never experienced "up North." They lead the kind of regal lives our wives continually dream about.

In establishing commercial relations with Latin American customers, then, the leisurely approach is the sound one. American "push" and bluntness are roundly resented.

It may be necessary for your Latin American representative to cultivate a convivial association with a prospect for three months before he mentions the real object of his visit!

To be sure, this type of salesmanship calls for an unusual American. We haven't had many of this type working for us, lately; but it is to be hoped that war experiences in foreign lands may breed this so-needed species of commercial trader for American exporters.

### Impervious Fellow

The most-often-encountered importer "south of the border" is apt to be a man of considerable means, and notable family background. He won't be impressed by cleverness, energy, or shock.

On the contrary, all such customarily American approaches will leave him cold.

Before he does business with your man, he'll want extensive assurances as to the soundness of your company, and the "rightness" of your representative.

Our big ace-in-the-hole in this market, as in all others, is the obvious size of American mass-production industries.

Because our domestic market for specialty products is so extensive, we can quote prices on these mechanical specialties when sold abroad which no foreign competitor can come close to matching.

### Dominant Maritime Power

The Department of Commerce estimates that the postwar exports and imports of the United States alone, on the assumption of capacity utilization of our industrial production through 1948, may aggregate more than \$13 billion annually.

If this figure is taken as a rough indication of the attainable volume of international trade as a whole, it suggests the possibility of employing a world total of more than 100 million deadweight tons of shipping—a tonnage possibly somewhat greater than is presently available.

The military aspect of the international shipping problem is likely to assume even greater importance as a result of the unprecedented naval strength that the United States is now developing.

If this strength is to be maintained, a merchant marine of corresponding proportions is indispensable.

It is not likely that the United States will make the mistake of junking its war-built vessels a third time.

Military arguments for large American shipping and shipbuilding capacities seldom are related to the security of the United States alone.

Most of the principal maritime nations are relatively small, and are subject to easy attack by land and air. These nations have been unable to replace their shipping losses during the war, and the United States has had to fill the gap.



**THE NEW  
Streamlined  
'WIZARD'  
DRY BOTTLE COOLER**

FEATURING THE ROLLBACK 1 1/2" INSULATED LIDS—  
Adjustable wire partitions and shelf offers greater capacity—

Sturdily constructed of heavy rust-resisting metal—  
Recessed base—High bake finish—Sizes 4-6-8 ft.

**LA CROSSE COOLER CO.**  
2809 LOSEY BLVD. So., LA CROSSE, WISCONSIN

Formerly La Crosse Novelty Box Co.

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**Advice From One Who Knows:****'Only with Separate Dept. Can Auto Parts Dealer Gain Success with Appliances'**

WELLSTON, Mo.—For the automotive supply store to sell major appliances successfully requires extreme specialization, according to Charles LaRico, head of Major Auto Supply Co. here.

"I don't believe that there is any such thing as a man good in selling both appliances and auto supplies," Mr. LaRico said. "The store operator is either a good parts man or a good appliance man—and he hasn't time to do a worth-while job on both. Therefore, we're making major appliance promotion a specialty job throughout, with a separate selling space, separate personnel, advertising program, etc."

Mr. LaRico, who has been merchandising automotive merchandise in Wellston, near St. Louis, for the past 17 years, spent the "sales doldrums" period during the war in lining up excellent major appliance franchises. Included in these are Norge, Bendix, Admiral, Easy, and Gladiron. This provided an excellent stock with which to go into a highly competitive field.

**Appliance Annex Next**

His next step was to set up his "Appliance Annex"—which consists of a 20 x 30 ft. space to the left of the main store, which was formerly an adjoining shop. To devote "exclusive atmosphere" to major appliances, Mr. LaRico spent \$1,200 in cutting through a plastered arch, installing a fluorescent lighting system, handsome display windows, etc. The annex is provided with electrical current and gas for "live" demonstration of all major appliances, and with a separate entrance has put their promotion on an individual basis.

In the rear of the annex, incidentally, is a repair shop which will handle traffic appliances such as

toasters, waffle irons, irons, etc. Large appliance repairs, such as overhauling refrigerators, washing machines, etc., will be transferred to a new automotive parts store being built by the company at 6340 Natural Bridge Ave.—where a full-size staff of mechanics will do the work.

"We have got to back up our sales with service, or enjoy a brief stay in the business," Mr. LaRico smiled. "Eventually, our service department will be so set up that we can accept trade-in appliances, overhaul them and resell them to break even on cost—paving the way for a profit on a new-appliance sale."

"Nobody in his right mind will attempt to carry on an appliance volume amounting to 300 or more refrigerators a year without backing

it up with sufficient service facilities."

With these physical aspects of the program taken care of, Mr. LaRico's next step was to set up an entirely different personnel plan. All appliances in the store will be sold by a specialty-expert appliance manager and three salesmen, who will alternate floor time and outside calls.

Recognizing many of the weaknesses which plagued appliance dealers before the war, Mr. LaRico has put compensation on an unusual footing. Under the plan, the manager will receive a salary of \$200 a month, and 2% per month on gross sales—a policy which Mr. LaRico feels will be incentive for the manager to work more cooperatively with his salesmen, assigning

the best man to each prospect, etc.

The three salesmen, who will be paid similarly, will divide their time between prospects inside the store, and making outside calls—which will consist of following up hot leads from previously-sold customers, doorbell-ringing in assigned territories, and prospecting in general. The separate department will make it possible to give night demonstrations, with appliances actually in use, without interfering with the rest of the store.

**More Time Outside**

"We expect to have to go out after the business," Mr. LaRico said. "Therefore, every salesman will spend more time outside the store than in."

The all-important question of financing has been handled through a cooperative agreement with a local bank. Time-payment purchases will be discounted to a Wellston bank which offered Major Auto Supply Co. a 2% layaway deal—whereby, if there are no losses, repossession, etc., involved at the end of the year, Major Auto Supply Co. will receive

2% of the total amount financed back.

Or, if total loss over a year's selling time amounts to only \$100, and there is \$200 written through the bank, Major Auto Supply will still receive \$100 back. This is an unusually fair plan, Mr. LaRico said, providing incentive for careful selection of customers and a deterrent to over-enthusiastic selling.

The appliance annex is being advertised once a week in Wellston newspapers, and will be advertised almost daily when a sufficient stock is on hand.

Like many other automotive retailers, Mr. LaRico has been accepting "advance orders" on major appliances, without a cash deposit, until November. However, this plan has been discontinued inasmuch as Major Auto Supply does not want to tie up its total future market for a year or more to come, and because such advance registrations are usually valueless.

"We have found that too many people go from store to store signing up for future delivery of appliances," Mr. LaRico summed up, "and we cannot depend upon them . . ."



# 8 MILLION FRIGIDAIRE

Frigidaire has built and sold  
over 8 million refrigerators since  
moving to its plants at Dayton, Ohio, in 1921.  
This record of buying preference has earned  
Frigidaire the title ...

## AMERICA'S FAVORITE REFRIGERATOR

Depend on  
**FRIGIDAIRE**  
to do things RIGHT!

You're twice as sure with two great names

**Frigidaire** made only by **General Motors**

**A MIGHTY MIDGET**

The new  
**CONTROLDTEMP**  
2-Stage Condensing Unit

Air Cooled • 1/2 hp. • Package Type

Immediate delivery—less motor.  
Motor quotations on request.

Small, compact, efficient. Ideal for frozen food cabinets, reach-ins or showcases.

**CONTROLDTEMP**  
CORPORATION  
236 Butler St. • Brooklyn 17, N. Y.

**AS-IS AND REBUILT  
REFRIGERATORS  
FOR SALE**

A.C. or D.C.  
Large Quantities In Stock Available for Immediate Delivery

Write today for details  
**S. J. O'BRIEN SALES CORP.**  
Established 1918  
11th Avenue and 34th Street  
New York, N. Y.

**PURO** ELECTRIC WATER COOLERS

BRANCHES IN PRINCIPAL CITIES  
MAIN OFFICE  
440 LAFAYETTE ST.  
New York 3, N. Y.  
**PURO FILTER CORP.  
OF AMERICA**  
DRINKING WATER SPECIALISTS FOR 40 YEARS.

## They'll Do It Every Time . . . By Jimmy Hatlo



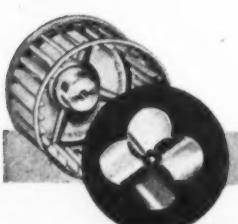
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### Out With Special Privileges -- Revise the Wagner Act!

\*CERTIFIED . . . aerodynamically designed for maximum operating efficiency with quietness; guaranteed to perform as rated under NAFM and NEMA Test Code conditions; hand gauged for uniform contour, alignment and balance. The Torrington Manufacturing Company.

"Will one of your fan blades improve the air delivery of my auto heater?" asked a manufacturer. Into the Torrington laboratory went the problem and Certified Air Impellers produced these results. The former fan, six blades and 7½ inches in diameter, delivered 286 c.f.m. at 0" static pressure. A Torrington Aristocrat fan stepped up air delivery to 332 c.f.m. at 0" static pressure and the Torrington fan is only 7" in diameter with five blades. Both ratings were made at 1725 r.p.m.

Through the help of Certified Air Impellers, product-improving, money-saving results like these are benefiting manufacturers, their dealers, and the product user every day. For best results, it will pay you to consult The Torrington Manufacturing Company while your new product is still in the early stages of design.



**THE TORRINGTON**  
MANUFACTURING COMPANY, TORRINGTON, CONNECTICUT

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AN INTERNATIONAL INSTITUTION • SUBSCRIBERS ALL OVER THE WORLD

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## Home, Sweet Home

THE most important word in the English language today is "home." We almost said: "in any language." And then we remembered that in many parts of the world "food" is a word which has life-or-death significance.

But in the United States, and in the bombed-and-burned European and trans-Pacific countries, a "home" is certainly one of the most yearned-for objectives which human beings have today.

Let's take America, as an example. No bombs fell here. No homes were wrecked.

Yet, we face the greatest housing shortage in our history.

Why? Because we didn't build enough new homes during the Roosevelt Depression, and because wartime marriages-and-births hit an all-time peak for this nation, and are still climbing.

Millions of G.I.'s married, sired babies, and left wives and children at home with his folks or hers. All these newly created families now want—and usually need *desperately*—homes of their own. When two or more families try to live together under one roof, it's no go. Troubles mount and multiply.

Furthermore, the G.I.'s themselves have indulged in standard dreams during their enforced slavery in the armed forces.

Their dreams—almost to a man—have enfolded thusly:

*They want a home of their own*, where "the little woman" greets them with a loving kiss and a hot dinner at the end of a day's work, and to which they can repair in comfort as the absolute masters of their destinies (or so they dream). No wet-behind-the-ears sergeant, or a 90-day-wonder lieutenant, could push them around in their own home, they figure that "home" is their "castle."

Since the war's end, most of our vets have made the start: they've married, and begun to raise families. Now all they need is a place to live. And they intend to get it.

What does this mean for the appliance dealer? That's one question which is easy to answer. It means *profits*, and an *expanding business*!

At least 14 million new homes will be built during the next decade, if the present and calculable future demand is to be met—even in part.

Every one of those homes should have a modern kitchen—including a range, a refrigerator, a home laundry, and possibly a dishwasher and garbage-grinder. They'll all have to provide radios and many of the "convenience appliances," such as irons, toasters, food-mixers, and even air conditioners. Just imagine the extent of that terrific market!

Piled up on top of the replacement market for worn-out, obsolete appliances—and then superimposed upon the demand for "better living" which the acquisition of greater dollar-funds has built up amongst present householders—it all adds up to unprecedented prosperity for people in the home appliance business during the next decade.

If you're Johnny-on-the-spot with bright new ideas for capturing a heavy hunk of this demand, you'll do O.K., brother, as a home appliance dealer, distributor, serviceman, or manufacturer.

"Home, Sweet Home," is a slogan which may well become the dominant fact in American business life. Recognize it for what it's worth, and *cash in on it*.

You can't do that sitting down, however. The competition will be terrific. You'll have to learn how to promote and sell these specialties. If you're an old-timer in the specialty selling game, you'll need a refresher course. And if you're a newcomer to this tense, intense business, you have plenty to learn.

Business belongs to the man who goes after it—and *knows how to get it*.

## High Steel Output May Boost Flow of Durables

PITTSBURGH—The recent high level steel production will soon be reflected in a greater flow of heavy porcelain enameled goods such as major appliances and architectural panels, Edward Mackasek, managing director of the Porcelain Enamel Institute told the Institute Market Development Committee during its recent meeting here.

According to reliable authorities, steel ingot production in Pittsburgh is averaging 92 to 95% of rated capacity, while production over the country as a whole has climbed to between 97 and 103%.

With reconversion in the porcelain enameling industry generally completed, said Mr. Mackasek, the only deterrent to record output in the past has been raw material shortages. Heavy porcelain enameled goods for the architectural, chemical, and food storage and processing industries, and for major household appliances, is mainly dependent upon current enameling iron and steel sheet supply.

Improvement in availability of these steel products, while being shared by the enormous demands of other industries, will be sufficient to give the porcelain enameling industry another bright upturn, he said.

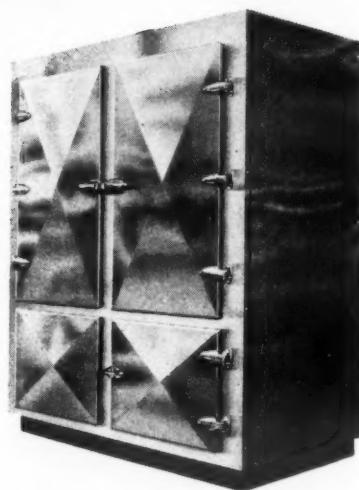
## Davis Named G-E Appliance Sales Head in Minneapolis

MINNEAPOLIS—J. T. Davis has been appointed local manager of General Electric appliance sales here, it has been announced by C. R. Pritchard, general sales manager of the G-E Appliance & Merchandise Department.

Mr. Davis came to the company in 1926 and worked with several affiliated companies before he was transferred to the Appliance & Merchandise Department in 1932 as district representative in Minneapolis.



### QUALITY LINE of Refrigeration



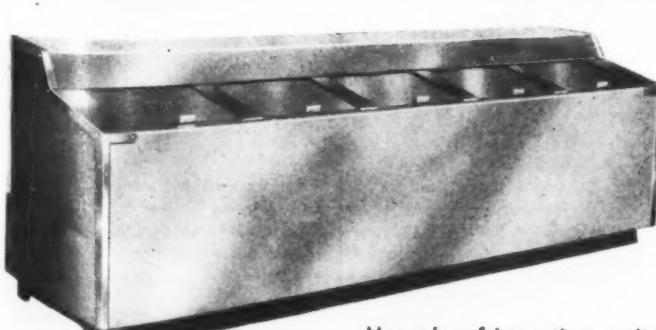
#### Reach-in Cooler

72 in. high, 61 in. wide, 34 in. deep. Cooler model has 37 cu. ft. cooling space. Combination model has 11 cu. ft. freezing, 23.5 cu. ft. cooling. Insulation 5 in. around freezer, 3 in. around cooler. 1/3 HP compressor. Blower coil. Adjustable controls.



#### Quick Freeze Locker

34 in. high, 72 in. long, 30 in. wide. 12 cu. ft. capacity. Large lid, 23x45. 1/4 HP compressor. Range from 15° below zero to 3° above. 5 in. insulation.



#### Dry Beverage Cooler

39 in. high, 30 in. wide, 6, 8, or 10 ft. long. Lids slide away or lift out. Removable dividers. 8-in. utility shelf.

Marvel refrigeration units are finished in Stainless Steel or polished Aluminum.

### DEALERS WANTED

**ROGERS**  
Industries  
BOX 373-AC DEMOPOLIS, ALA.

Immediate Delivery!

Write, wire or phone today for information on franchise.

## Sampson Electric Plans Move to 100,000 sq. ft. Quarters In Chicago

CHICAGO—A new home for the Sampson Co., large appliance and radio distributor here, is now under construction and will be ready for occupancy about July 1, 1947, Peter Sampson, president, has announced.

The building, located on Western Ave. at 23rd St. in the approximate geographical center of Chicago, will cover an area of nearly 100,000 sq. ft., he said.

Designed specifically for the function of distribution, the structure will house the executive offices, display room, warehouse, and sales, service, and parts departments all on one floor.

Five freight cars can be unloaded simultaneously within the building. The truck loading area will handle eight 40 ft. trailer trucks under roof at one time.

Office and display rooms will be completely air conditioned. Radiant type floor panel heating will be employed throughout the structure, the company said.

Incorporated on Jan. 31, 1921 as the Sampson Electric Co., the firm originally engaged in the wholesale distribution and servicing of several types of automotive electrical equipment.

However, it later branched out into the distribution of other lines and now handles such products as Norge refrigerators, ranges, washers, and home heaters; Bendix radio sets and phonograph combinations; Youngstown kitchens; Stokol stokers; Ironrite ironers; Hamilton dryers; and Universal vacuum cleaners and table appliances.

Sampson claims to serve 2,000 dealers throughout the greater portion of Illinois, and parts of Iowa and Indiana.

## Merchant's Appliance Inventories Gain 329% In West, Report of San Francisco Reserve Bank Shows

SAN FRANCISCO—Indications that western merchants are watching inventories sharply, with a desire to keep stocks up-to-date, come from the San Francisco Federal Reserve Bank in its final trade summary for December.

The bank reported that while stocks in 232 department stores increased an average of 80% compared with December of 1945, orders outstanding were cut 26% as more desirable merchandise began to flow from factories and mills.

As was to be expected, the biggest gain in stocks came in the major household appliances—refrigerators, washing machines, stoves, ironers, cabinets, etc. The expansion was 329%. Sales in this category (net total value) increased 215% in the district. The gain was sensational in West Los Angeles, 1,077%, and San Francisco, 644%.

Stocks were larger in every one of the reporting areas in the seven

states of the 12th district, ranging from 60% higher in Sacramento to 125% in Arizona.

Likewise, outstanding orders were cut in every area that reported on the subject. These cancellations ranged from 4% in Washington and northern Idaho to 41% in San Diego.

First place for the largest yearly gain in total sales value went to radios, phonographs, and records. For the district the gain averaged 425%. It was 838% in downtown Los Angeles department stores and 346% in San Francisco.

## 16-Year Auto Parts Veteran Opens Maine Appliance Store

PORTLAND, Me.—Jefferson H. Hodges, who has been manager of a tire and auto supply store here for 16 years, has opened a new appliance store, Hodges Appliances, Inc., at 121 High St.

## Builders' Convention To See Hotpoint Kitchens

CHICAGO—An opportunity to see how Hotpoint Institute of Edison General Electric Appliance Co. plans its kitchens will be afforded visitors attending the coming convention and exposition of the National Association of Home Builders.

Kitchen designers manning a specially designed Hotpoint display will make actual plans for the visitors. Also included in the display will be a complete all-electric kitchen and a home laundry. Hotpoint's 1947 automatic electric sink that encloses a disposal and automatic dishwasher will be shown.

Packages of kitchen-planning information intended to assist users in setting up planning departments in their offices or stores will be given out. Each package will include a booklet explaining methods of financing ensembles, as well as installation data.

The exposition is being held at the Stevens hotel Feb. 23-27 inclusive.

# THE INEXPENSIVE UTILITY FAVORITE



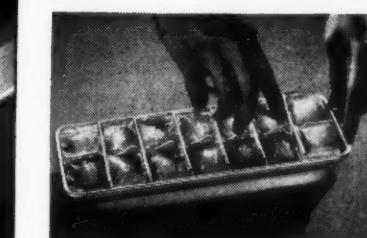
## INLAND TILT OUT ICE CUBE TRAY

Low in price, yet high in utility, Inland's Magic Finish Tilt Out Tray is favored for original equipment by leading automatic refrigerator makers, as well as for replacement sales by dealers.

Fast freezing and "immediate delivery" of full-sized ice cubes—two at a time or a trayful—make the Tilt Out Tray the low priced favorite with users, too.

Moreover, the efficient Inland Tilt Out comes in both single tray and double duty Dessert Tray sizes, with or without pan lifter.

For prices and full information write to—  
INLAND MANUFACTURING DIVISION, General Motors Corporation, Dayton, Ohio



FOR TWO CUBES As shown in illustration above, it is easy to use the Operating Lever and get two or more full-sized ice cubes from the Inland Tilt Out Ice Cube Tray.



FOR A TRAYFUL After cubes are loosened the grid is lifted vertically and cubes fall into the single tray pan—or Inland Dessert Ice Cube Tray Pan as shown above.

FAST FREEZING  
QUICK RELEASING  
ICE TRAYS BY INLAND  
MANUFACTURING

INLAND

**DEPENDABLE  
YEAR AFTER YEAR**

Pressure lubrication worries disappear with Tuthill small pumps on the job. These dependable mechanically sealed pumps are engineered for long service in handling lubrication and other requirements. Leakfree performance, minimum power consumption and quiet operation characterize these reliable small pumps. Capacities up to 3 g.p.m. in wide pressure ranges. Many mounting types and porting arrangements. Write for Tuthill Model L bulletin.

**TUTHILL PUMP COMPANY**  
939 East 95th Street • Chicago 19, Illinois

**Navy Experiments Show:****Odor Control Is Greater Problem Than CO<sub>2</sub>, In Air Conditioning Ship's Berthing Spaces**

CLEVELAND—Tests conducted for the Navy at the National Naval Medical Center to determine the minimum air requirements for air conditioned berthing spaces indicate that odor control is much more of a problem than keeping the carbon dioxide content of the air at a minimum, according to Capt. A. R. Behnke, U.S.N., who addressed the annual meeting of the American Society of Heating and Ventilating Engineers here.

Of the substances tested—activated carbon, ozone, and a liquid deodorizer—activated carbon showed the most satisfactory results, he said in presenting the paper "Minimal Replenishment Air Required for Living Spaces" which was prepared by William V. Consolazio and Louis J. Pecora of the Naval Medical Center.

The tests were conducted with 45 men over a period of five months. The men spent virtually all their time in an air conditioned space designed to simulate the actual conditions of berthing space in a naval ship.

"In a space where air is recirculated and heating or cooling takes place nearby, the odor problem is important, while the carbon dioxide content of the air is not critical," declared Capt. Behnke. "One c.f.m. of air will keep the CO<sub>2</sub> content

down to the required 1.4% level, but usually about 10 c.f.m. of air is supplied to keep the odors down.

"In a submerged submarine where 70 men stay for 60 hours, the carbon dioxide rises to about 5% in 35 hours, and under these conditions the individuals are not bothered by odors unless the odors are unusual. Odors are important, however, when people move in and out of the space," he emphasized.

At the Medical Center tests, there was 140 cu. ft. of air space per man, and the test room was fitted with bunks and bedding. The subjects of the test were young Navy men who bathed once a day and washed their clothes once a week. The air was usually maintained at 78° effective temperature, representing 85° F. dry bulb, and 72° wet bulb, he explained.

Total air space in the test compartment was 6,500 cu. ft., and approximately 2,500 c.f.m. was circulated over the cooling coils. These were standard Navy duct cooling coils of the plate fin type measuring 12 by 30 in. with about 2.5 sq. ft. of face area.

With regard to measuring the odor level, Capt. Behnke pointed out that they would like to have measured the odor intensity.

"The nose, however, is rather poor for detecting the degree of concentration of odor, but we were interested in the quality, not quantity, of odor. The nose can detect the quality of air, and we had a sufficient number of trained judges to give a pretty good index."

"With 15 c.f.m. replenishment air per man the average odor level proved acceptable. When the replenishment air was cut to 10 c.f.m. there was no change, but at 5 c.f.m. a little increase was noted. At 3 c.f.m. the odor rose to an objectionable level."

When activated carbon was employed to "recover" the recirculated air, even with only 1 c.f.m. of replenishment air there was no in-

crease in the odor level, he declared, adding that without the activated carbon at 1 c.f.m., the odor level became unacceptable.

Tests conducted with ozone and a liquid deodorant showed that these two substances had less effect on the odor level than did activated carbon, indicated Capt. Behnke. The sensitivity of the nose to odors was reduced after exposure of 10 minutes to ozone or the liquid deodorant, he said. The investigators found, he added, that "these substances do not control or oxidize odoriferous substances."

Capt. Behnke believes that more experimental work should be done with the "chemical method of odor control, but re-emphasized the point that with activated carbon the amount of replenishment air can be cut to 5 or even 3 c.f.m. per individual, provided the air conditioning coils are cleaned at least once a week.

Questioned by Charles S. Leopold as to whether a log was kept of the number of people smoking during the tests, Capt. Behnke admitted that no record was made, commenting that the subject was a "tender point and a weakness. We did observe, however, that a 1 c.f.m. replenishment air levels without activated carbon there was enough smoke in the room to cause eye irritation. Activated carbon ended this eye irritation."

W. E. Zieber, director of research for York Corp. who has been supervising tests on odor and smoke control in air conditioning systems, stated that "one problem in connection with tobacco smoke is that it doesn't stay in its immediate form very long. There is a precipitation of tars and when the visible smoke disappears, it leaves very rancid odors."

Capt. Behnke confirmed Mr. Zieber's comments on smoke, declared that the rancid odorous material "settled on everything—mattresses, bunks, clothes—after the visible smoke disappeared!"

*Again, as before....*

**REFRIGERATION MEN**

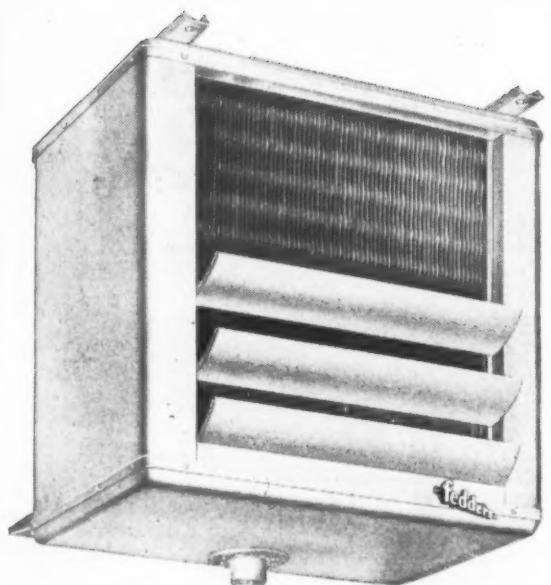
*rely on FEEDERS Ratings*



• The accuracy of Fedders ratings has not only built a reputation but a tradition in the refrigeration industry. Men who sell, install and service commercial refrigeration equipment have learned by experience that they safeguard their work... their reputation... and their profits when they rely on Fedders equipment.

Fedders catalog ratings are certified ratings based on exhaustive tests in the Fedders laboratory,—one of the best equipped in the industry.

Fedders Unit Coolers are built in a well graduated line of sizes in suspended and panel types. Write for current bulletin.



**FEDDERS-QUIGAN**  
CORPORATION  
BUFFALO, NEW YORK



# LEAKPROOF

**SOLDER**  
*fittings*



- ★ Dense, uniform structure.
- ★ Formed under hydraulic pressure.
- ★ Plug tested to assure close tolerances.
- ★ Stronger joints because they fit.

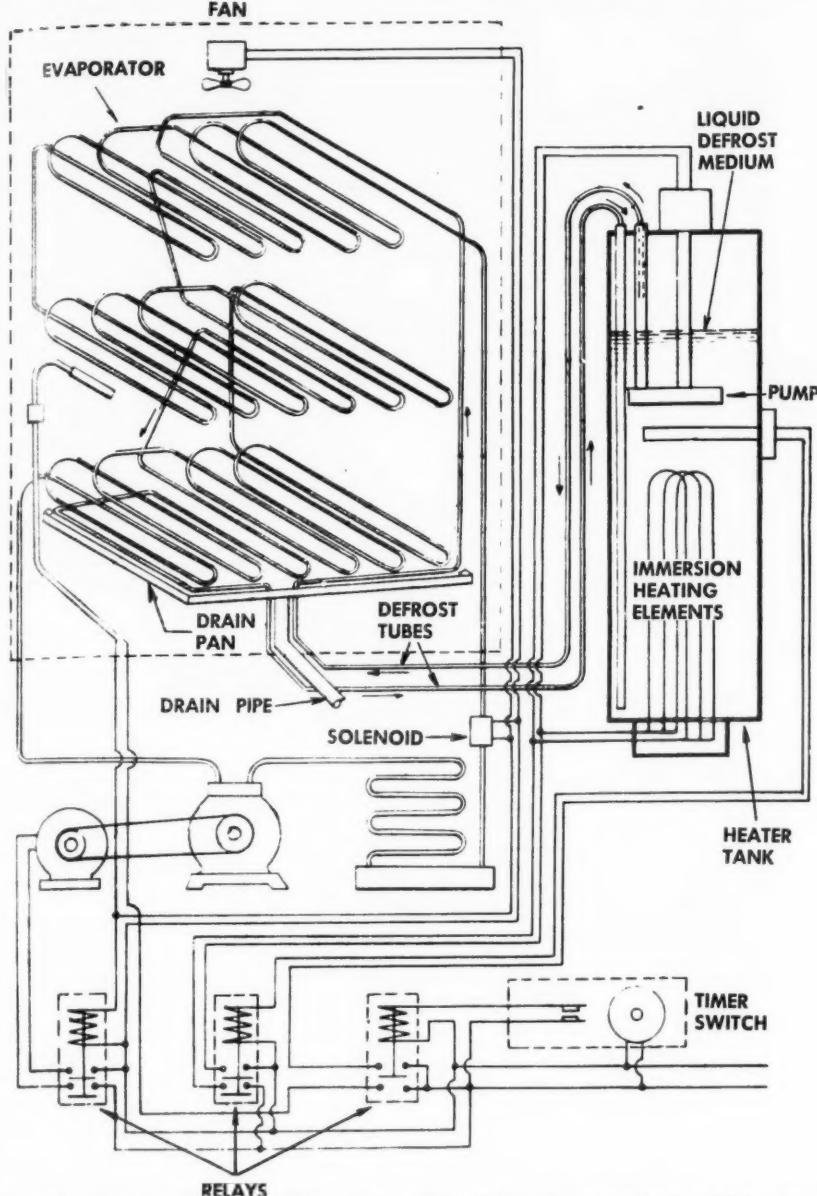
**STAND** *high pressure  
high temperature*

TESTS show NIBCO WROT Fittings will withstand tremendous pressures or temperatures. So accurately formed by NIBCO patented processes, they form stronger solder joints with copper tubing... joints that can't be pulled apart or sprung leaks. Made in standard types and sizes in great variety.

**Write for Catalog 614**  
NORTHERN INDIANA BRASS COMPANY  
ELKHART, INDIANA

**NIBCO WROT Copper FITTINGS**

## Difficult Defrost Problems Overcome With System Circulating Hot Liquid



Considerable success is claimed for this defrosting method which was devised to permit automatic defrosting of coils installed in freezer rooms on mink ranches, which present a difficult frost problem. The system, also used in locker plants, was devised by Fred A. Rickert and Roy E. Crichton, who operate the Rickert & Crichton refrigeration firm in Grayslake, Ill. As described in the NEWS of Feb. 3, the system employs a heating liquid medium which is pumped through tubing in the coil of a unit cooler. The liquid is heated in a tank by electric immersion elements and is circulated by a pump. Length of defrosting period (usually 15 to 20 minutes) and defrosting intervals are pre-set on a timer switch. This switch first stops the fan in the blower coil, closes a solenoid valve in the liquid line, and starts the circulating pump. By closing the liquid line solenoid, the compressor can pump down the system to prevent excessive load on starting. Note that the liquid defrost medium tubing is circulated around the drain pan and drain pipe to prevent freeze-ups.

## New Chemical Prevents Corrosion of Aluminum

AMBLER, Pa.—A chemical coating known as Alodine, which is designed to protect aluminum from rust corrosion, has been invented and developed by the American Chemical Paint Co. here.

The coating is said to be thin, hard, smooth, and tight. It is claimed to become so well integrated with the parent metal and to be so flexible that stresses arising from bending or denting, or from drawing or stamping operations do not damage it or impair its protective qualities.

Alodine can be applied to practically every fabrication of which aluminum is capable in either a spray, immersion, tumbling barrel,

or flow coat process, the company states. A few minutes immersion in the Alodine solution is said to be sufficient to apply the coating satisfactorily.

Because of the nature of Alodine, the manufacturer recommends that the immersion tanks or spraying equipment used be made entirely of stainless steel.

As it can be installed without elaborate equipment and operated without electrical current and in brief operating cycle, the Alodine process is the most economical and most effective method yet devised for keeping aluminum intact and unharmed by corrosion, according to the company.

**SILTRONIC Temperature SENTRY**  
EASILY INSTALLED TO ANY MAKE, SIZE OR  
SHAPE OF HOME FREEZER OR REFRIGERATOR  
—for Frozen Food Safety!

**Automatically  
Indicates**

- NORMAL OPERATION
- REFRIGERATION FAILURE
- POWER FAILURE

List Price \$21.50 complete

**SPECIFICATIONS**

CONTROL UNIT—Sturdy Steel Construction—Baked Enamel Finish—Heavy Duty Electrical Components—6 Ft. Approved Cord—Toggle Switch—Indicates Green Light (Normal Operation), Red Light and Alarm (Operation Failure).

THERMO-SWITCH—Hermetically Sealed Unit—1/10" Sensitivity—Silver Contacts—Instantaneous Operation—Laboratory Adjusted For Operation at 15°F. (Also available at any Temperature Adjustment From 100°-400°F.).

POWER SOURCE—110-115 Volts, 50-60 Cycles.

DIMENSIONS—Length 6", Height 3", Depth 3/4".

Other "Siltronic Sentrys" For Industrial, Chemical and Laboratory Needs

**THE SILTRONIC COMPANY, 320 PENN AVE., PITTSBURGH, PA.**

Inquiries Solicited from Sales Representatives and Distributors.

## 'Airserco' Becomes Name Of Aircraft Service Co.

PITTSBURGH—Airserco Mfg. Co., Inc. is the new name adopted by the former Aircraft Service Co., here now producing refrigeration service instruments.

The new corporation was formed on Jan. 1, 1947. It will continue to maintain its factory and general offices at 435 Melwood St. here.

E. C. Williams is president. Other officers of the corporation are Wayne R. Jamison, vice president and technical director; H. M. Williams, secretary and treasurer; and H. V. Davis, director.

## Specify CHICAGO SHAFT SEALS VALVE PLATES



With Self-Adjusting Sleevelock.



Only Chicago valve plates have replaceable seats.

**CHICAGO SEAL CO.**  
20 NORTH WACKER DRIVE • CHICAGO 6, ILL.

## "Tested by Use" - That's the Proof

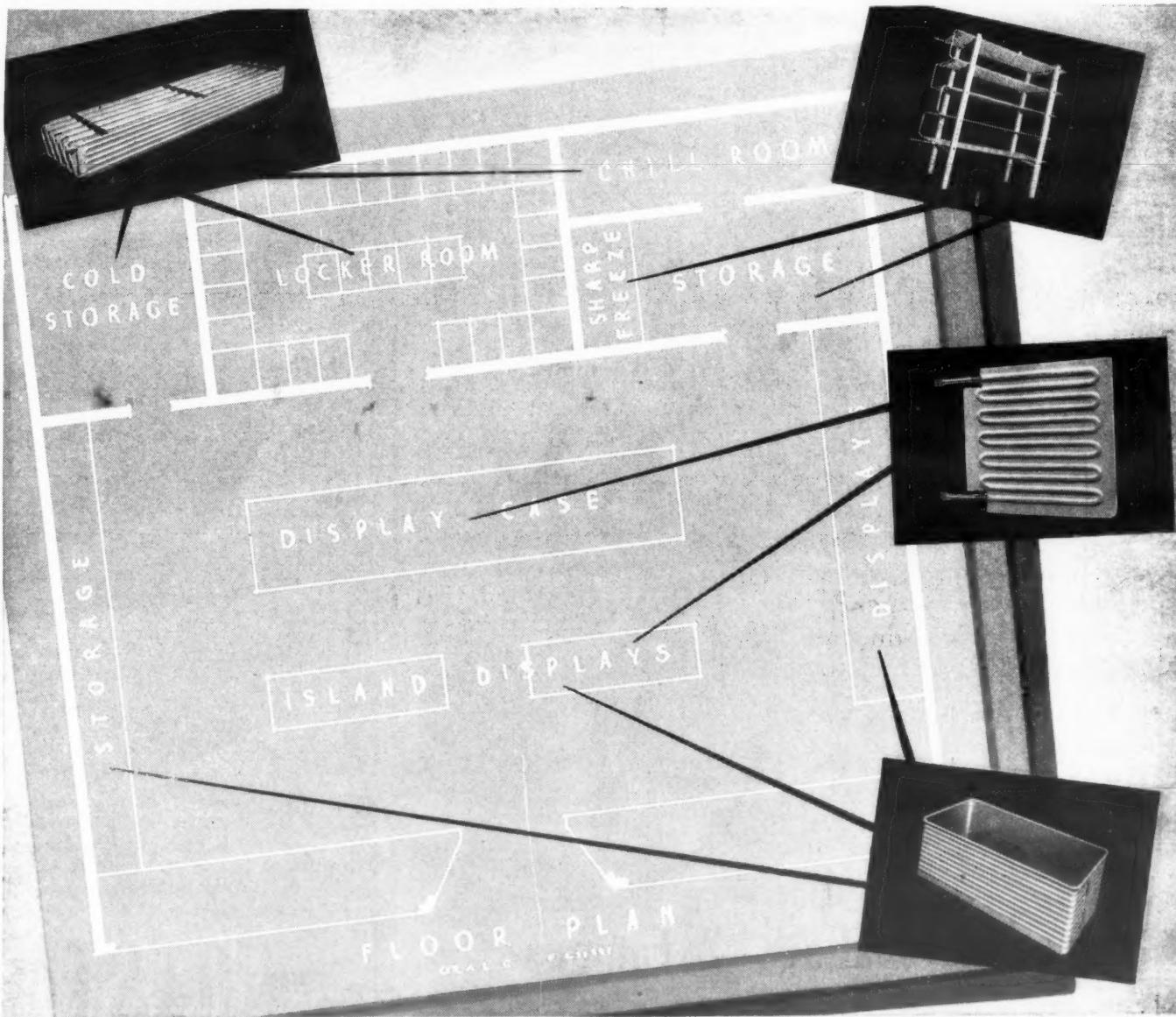
### Ranco Refrigeration Controls Are Efficient

YES! Ranco operates efficiently . . . for a long time . . . proved by tested use in millions of commercial plants and households.

For complete information write to Ranco or See Your Jobber Today

**Ranco Inc.**

COLUMBUS 1, OHIO



## SPECIFY **KOLD-HOLD** FOR YOUR LOCKER PLANT PLANS

Kold-Hold equipment is designed for efficient, economical refrigeration. It is unequalled for locker plant applications. Constructed simply and rigidly, lightweight Kold-Hold Refrigeration Units have only one wall between the refrigerant and the contacting air. Tubes, pipes and unnecessary refrigeration joints are eliminated. The refrigerant flows through the stamped steel serpentine passages and contacts a maximum surface area creating an exceptionally high rate of heat acceptance and equally fast temperature pull down. Easy to install and maintain, Kold-Hold Evaporator

Type Banks, Plate Stands, Conversion Plates and Liners fit into every stage of locker plant processing. They hold constant, controlled temperature within the desired ranges for such locker operations as thorough chilling, fast action sharp freezing and constant low temperature storage. Kold-Hold refrigeration enables the faster processing of more perishables . . . maintaining their fresh, wholesome flavor and natural color indefinitely.

Write for complete data on Kold-Hold Locker Plant refrigeration. Ask for a free copy of the new Kold Hold Catalog showing the latest equipment in this line

**KOLD-HOLD**

Jobbers in Principal Cities

PROCESSING      TRANSPORTATION  
protects every step of the way

STORAGE

**KOLD-HOLD MANUFACTURING COMPANY - 500 E. HAZEL STREET, LANSING 4, MICHIGAN**

# What's New

## Convertible Unit



A model is shown inspecting the Coolerator 7.75 cu. ft. electrical refrigerator that can be converted from a 5.25 cu. ft. ice refrigerator through the use of the firm's new convertible unit. Change-over is accomplished with only minor cabinet changes and a slightly higher base. The ice compartment is used for evaporator containing ice trays and frozen foods.

1947 FEBRUARY							1947 MARCH							1947 APRIL						
SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT
2	3	4	5	6	7	8	1	2	3	4	5	6	7	1	2	3	4	5	6	7
9	10	11	12	13	14	15	9	10	11	12	13	14	15	13	14	15	16	17	18	19
16	17	18	19	20	21	22	16	17	18	19	20	21	22	20	21	22	23	24	25	26
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NEXT MONTH							NEXT MONTH							NEXT MONTH						

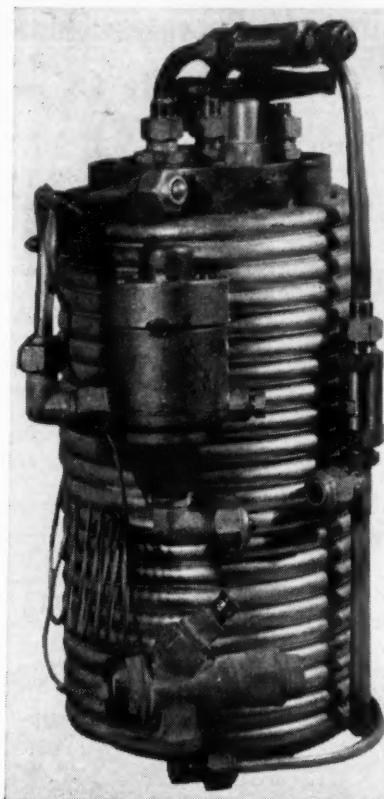
## Cooler-Carbonator Gives 300 Glasses Each Hour

DETROIT—Development of a new completely automatic, combination cooler-carbonator unit that cools plain water, carbonates at low temperatures, and dispenses both plain and carbonated water, cooled to a constant 40° F., has recently been announced by Temprite Products Corp. here.

Operating on the dual principle of absorption and diffusion, the new combination unit is said to deliver up to 220 gallons (5,620 glasses) of highly carbonated water from a single 20 lb. cylinder of CO<sub>2</sub> gas. It is said that over 300 glasses of either plain or carbonated water (or any proportion of each) may be dispensed in one hour, the temperature having been brought down from 80° to 40°.

Further, according to the manufacturer, the new unit is compactly designed and requires less than 10 sq. in. base area and 15 in. vertical clearance for installation.

In operation, incoming plain water flows through a double-tube water cooler which is wrapped around a stainless steel carbonator shell. The cooled water enters the carbonator shell through a specially designed spray head which is said to produce a fine mist inside the shell. Simultaneously, CO<sub>2</sub> gas is introduced into



The Temprite Cooler-Carbonator

the carbonator shell, under the carbonated water level, through a gas diffusing element.

Thus the cold water travels through a CO<sub>2</sub> gas-charged atmosphere in fine mist form to accomplish primary carbonation. It then collects at the bottom of the carbonator shell where it is again subjected to CO<sub>2</sub> gas through the diffusion action. The cooled carbonated water is then drawn from the bottom of the shell by a steel connecting tube.

The carbonator operates independently of city water pressure, at 70 lb. CO<sub>2</sub> gas pressure. The complete system consists of the cooling and carbonator unit and includes all necessary refrigeration valves, check valves and fittings, motor pump, and relay assembly.

A carbonator unit is available separately, wherever a satisfactory water cooling system is already in use.

## Crosley DE-17 Range



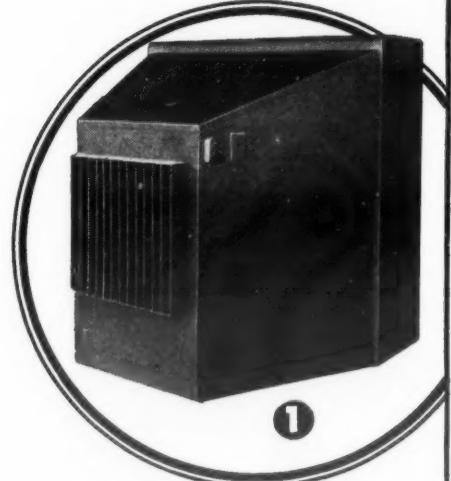
Above is the new Crosley electric range Model DE-17 which is constructed in a one-piece welded frame. It has a width of 40 in., a depth of 25½ in., and an overall height of 42 in.

X marks the month you go into action!

The market is huge, but competition is keen... and it's later than you think!

THIS is the time to get going.

Cash in on a full season's volume with...



## Great National's...2 Famous Evaporative Coolers



(1) New 1947 HYDRO SPRAY Air Washer DeLuxe model Evaporative Cooler

(2) 1947 CHALLENGER Evaporative Cooler

23 years of evaporative know-how—designing, manufacturing, installing—stands behind the Great National reputation, has made them the acknowledged evaporative experts of the nation. All this experience is yours for the asking.

Write for dealership in your territory  
—we can deliver!

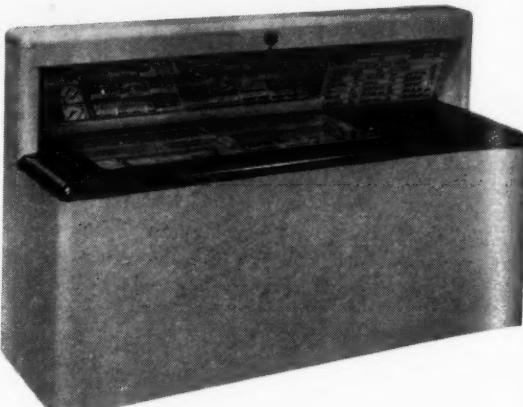
GREAT NATIONAL AIR CONDITIONING CO.  
"Weathercrafters for the Nation"

2125 North Harwood Street, Dallas 1, Texas

## New Carl-Craft Commercial Frozen Food Case

LOS ANGELES—Carl-Craft Co. here, manufacturer of Ultra-Cold freezer, has introduced a new line of commercial freezers, which range from 12 to 32-cu. ft. capacity.

A parallel line of farm and home freezers are sized from 6 to 20 cu. ft., an introductory statement pointed out. The new freezers feature fluorescent lighting, 100% transparent doors, luminous display back with full view mirror, and continuous flow refrigeration, according to the manufacturer.



## Lake Chemical Flux-Stik Aids Soldering of Joints

CHICAGO—Flux-Stik, a specially designed and chemically advanced soldering flux molded into stick form, has been introduced by the Lake Chemical Co. here.

Designed for use on sweat joints of copper or brass tubing, piping, refrigeration and heating coils, sheet metal, cabinet work, manifolds,

elbows, and traps, Flux-Stik is claimed to eliminate waste by covering only the immediate vicinity of the soldering joint when heat is applied. It will not spread itself all over the metal, the manufacturer says.

The company also declares that Flux-Stik is non-acid and requires no cleaning of the metal. It thoroughly and quickly dissolves the oxides of metals and thus prepares a free, clean, and better surface for the solder to alloy itself firmly with the metal, the manufacturer states.

Equally applicable to hot or cold metal, Flux-Stik, the company said, permits the solder to flow easily and smoothly. It will also adhere firmly and thoroughly to whatever metal is being used.

The new soldering flux is said by the manufacturer to be ideal for inaccessible and out-of-the-way soldering locations where cleaning of the metal would prove clumsy as well as very inconvenient.



**DIRECT DRAW DISPENSERS • COOLERS • WORKBOARDS •**

**BEER DISPENSING Equipment**

**RECOGNIZED . . .**

From coast to coast, yes—and abroad, the Perlick line of beer dispensing equipment is recognized as tops in dependability and performance. New, improved models now being manufactured. Write for catalog No. 41.

R. PERLICK

**BRASS CO.**

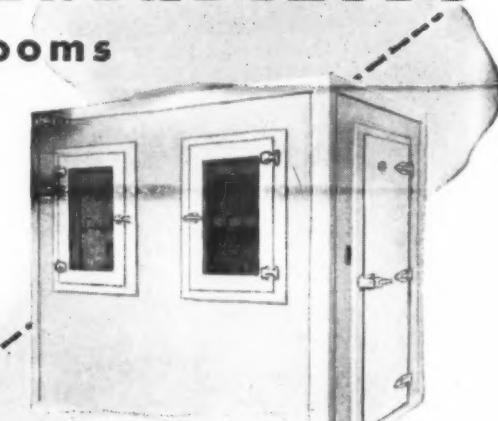
3110 W. MEINCKE AVE.

MILWAUKEE 10, WIS.

## CONSTANT DEPENDABILITY in Walk-in Cooling Rooms

Because they are well-built in every detail

and equipped with balanced coils and condensing units, they assure market operators of thoroughly dependable performance in the storage of perishables.



One member of a complete quality line . . . designed to be salable in volume at a profit.

**SHERER**  
COMMERCIAL REFRIGERATORS  
SHERER-GILLET CO., Marshall, Michigan

VEGETABLES • DAIRY CASES • REACH-IN  
REFRIGERATORS • WALK-IN COOLING ROOMS •  
MEAT & DELICATESSEN DISPLAY CASES •

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**A Portable Ice Rink for Her Anniversary**

Minneapolis Star Journal Photo

**Husband's Gift of Mobile Unit, Piping Freezes Rink for Ice Star When on Tour**

**MINNEAPOLIS**—Other wives may get a new refrigerator or new washer for a wedding anniversary present.

But not Mrs. Lambdim. Her husband James gave her a portable ice rink, all 3,750 lbs. of it.

Mrs. Lambdim, you see, is the ice skating star, Dorothy Lewis, who takes her ice rink with her when she travels about the country with her troupe on skating shows.

The rink was the creation of the Gartner Refrigerating Co. here. Mr. Gartner has applied for a patent.

The rink measures 18½ x 20 ft. and can be dismantled and packed into a space 4 x 6 x 19 ft.

It uses a 7½-hp. Frick low pressure refrigerating unit with Prestone as the refrigerant. Once the ice is frozen, the thermostatically controlled refrigerating machine keeps the Prestone at 20 to 24° F.

Floor piping in the rink consists of ¾ in. O.D. hard drawn copper tubing, welded on 2½ in. centers to 2½ in. headers. The piping is divided

into five sections and each of the five short headers is equipped with a plug valve for sealing in the refrigerant when dismantling the rink. The two large end headers are connected to the Prestone cooler and surge tank by rubber hoses.

A small pump pumps the Prestone through the pipes at the rate of 60 to 70 g.p.m. Connection hoses are 30 ft. in length, but can be increased.

When setting up the rink, the pipes are laid on a 1 in. thickness of asphalt-treated celotex covered with a canvas tank or pan contained in a low wooden framework.

Damp sand or gravel is filled in to the top of the pipes. After this has been chilled with brine at 10 or 15° F., a light coat of water is sprayed over it and frozen. Additional layers of water are sprayed on and frozen until the ice is ¾ in. thick over the sand.

Approximately 36 hours are required to set up the equipment and freeze the ice, it was said.

**Available Now****SHUR-TEMP  
FREEZER ALARM**

**The New Sensational Electronic Alarm That Gives Certain Protection for Home, Farm and Commercial Plant Freezers.**

**CHECK THESE FEATURES**

- Not connected with electrical supply
- Operates without capillary tube
- Encased in unbreakable metal
- Absolute protection against food spoilage
- Every low temperature service call a Shur-Temp sale

**\$15.95**

**RETAIL PRICE**

**\$9.57**—DEALERS PRICE F. O. B.  
WRIGHT CITY, MISSOURI  
2% CASH DISCOUNT ON ORDERS  
OF 12 UNITS OR MORE

Price subject to change without notice.

**EASY TO INSTALL**

Insert the Thermo-Switch inside the freezer, then hang Shur-Temp in any part of building. Takes less than five minutes to install.

**ORDER CARD—MAIL IN TODAY**

**CRAWFORD ENGINEERED EQUIPMENT CO.**  
413 Merchants Exchange Bldg., St. Louis 2, Mo.

Please ship at once  Parcel Post  Express  Freight

(.....) Shur-Temp Freezer Alarms.

No. units \_\_\_\_\_

If we are not completely satisfied it is understood that we may return within five days for a refund.

NAME.....

ADDRESS.....

CITY..... STATE.....

..... Jobber's Name and Address

**4 WAA Service Centers Are Added In 3 States**

**WASHINGTON, D. C.**—Four more customer service centers have been opened recently by the War Assets Administration to assist prospective buyers of government surplus property to locate what they want in the WAA inventory.

These new centers are located at 329 Weis Bldg., Beaumont, Tex.; 317 N. Tryon St., Charlotte, N. C.; 301 Federal Recreation Bldg., Cheyenne, Wyo.; and 722 S. Center St., Casper, Wyo.

**Airo Supply Co. Leases Building In Chicago**

**CHICAGO**—The Airo Supply Co., refrigeration parts and equipment wholesaler here, has leased an entire building to house its purchasing, inventory control, and expediting departments, it was announced recently by E. J. Lovett, promotion manager.

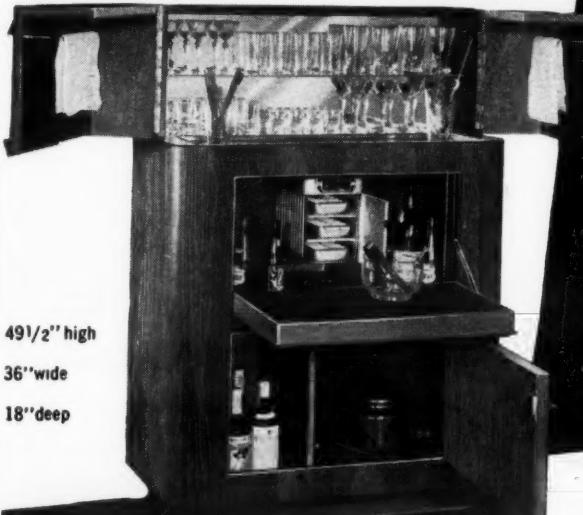
A portion of the new space will be used for stocking and displaying some of the new and more bulky merchandise that Airo is now handling, he said.

The space formerly occupied by the purchasing department will be used by the new and expanded advertising and sales promotion department, Mr. Lovett stated.

Airo plans to improve its catalog to make it easier for customers to find and order the merchandise they want, he added.

**Now ready for IMMEDIATE DELIVERY!****Penguin refrigerated Bar**

for Home, Office and Showroom



SERVING + ELECTRIC + LIQUOR  
BAR + REFRIGERATOR + CABINET

ALL BLENDED IN A SUPERBLY ENGINEERED UNIT

ATTRACTIVELY PRICED FOR FULL RETAIL MARKUP  
WITH FULL YEAR PARTS GUARANTEE

Quality features  
you can promote  
profitably now!

- 63 ice cubes in one freezing
- Over 3 cubic feet of refrigerated storage
- Liquor compartment with lock
- Hermetically sealed condensing unit
- Mirrored back and base in serving section
- Stainless steel serving tray
- Fibre glass insulation
- Walnut, mahogany or oak plywood cabinet

**MANN**

**REFRIGERATION SUPPLY CO.**

15 Astor Place, New York 3, N.Y.  
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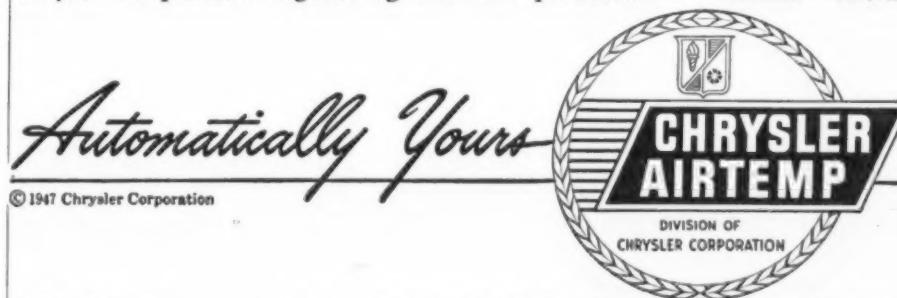
WRITE OR WIRE NOW  
FOR COMPLETE DETAILS

**★ 1947 NATIONAL ADVERTISING ★****Pre-Selling the Chrysler Airtemp TRIPLE LINE!**

**H**ELPING to build and maintain markets for Chrysler Airtemp home heating, air conditioning and commercial refrigeration dealers, Chrysler Airtemp employed more than fifty million advertising messages in 1946. Now the 1947 campaign is under way! Above are some of the advertisements which appeared in January and February. Leading the list are full-color advertisements in the Saturday Evening Post, which has a circulation of 3,710,392! This national advertising drives home the story of the advanced design and high quality of Chrysler Airtemp Products. It stresses the point that these are products of Chrysler Corporation engineering and mass production

skill and experience—famous around the world, and accepted as assurance of high quality and proved dependability at reasonable cost.

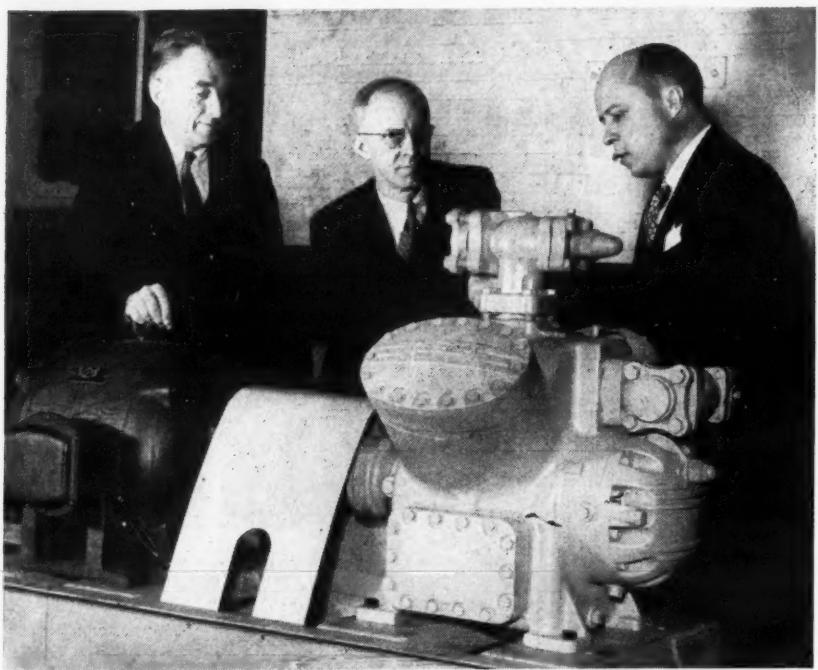
Public acceptance created by such products and such national advertising spells year-around profit opportunities for Chrysler Airtemp dealers—today, tomorrow and in the years to come! Perhaps you are interested in this Chrysler Airtemp business opportunity. Dealer agreements are written for one, two or all three of the Chrysler Airtemp lines. For information, you are invited to write Airtemp Division of Chrysler Corporation, Dayton 1, Ohio; in Canada—Therm-O-Rite Products, Ltd., Toronto.



FOR YEAR-AROUND DEALER PROFITS

HEATING • AIR CONDITIONING • COMMERCIAL REFRIGERATION

## Checking Carrier's New 25 Hp. Compressor



Showed inspecting Carrier Corp.'s new direct-drive four cylinder compressor now in production are: (left to right) S. H. Ellison, assistant to the manufacturing vice president; Norman Landis, foreman; and Mark E. Mooney, production manager of applied refrigeration. The compressor, Model 5H40, is a 25-hp. unit which is reported to be light in weight, have a low operating cost, and occupy less space than similar models.

## Einersons Build Store

BLANCHARDVILLE, Wis.—Ralph and Amos Einerson are constructing a one-story building here in which they will open an electrical appliance and contracting business. The front will be veneered with native stone.

## A. J. Pellegrini Placed In Charge of Marlo Production

ST. LOUIS—A. J. Pellegrini has recently been appointed production manager of the Marlo Coil Co., producer of heat transfer units.

## JORDON ALL PURPOSE REFRIGERATOR

MORE VERSATILE THAN A ONE-MAN BAND!

- For Bars, Cafes, Hotels, Food Markets, Delicatessen—Sandwich Shops, Caterers, Restaurants, Clubs, etc.

- A real service refrigerator that can be used and abused 24 hours a day. Cools lightning fast—stays DRY and SANITARY with JORDON Exclusive "Climatic Conditioning." Never needs defrosting.

- Can't be equalled for bottle storage. Holds up to 30 cases. Labels stay dry. No messy ice water! Provides convenient division of products.

- Write, wire, phone for descriptive folder. We are producing and making delivery NOW through our National Distributing Organization.



**jordon**  
AMERICA'S MODERN COMMERCIAL LINE  
**JORDON REFRIGERATOR CO.**

Sales Division  
235 N BROAD STREET, PHILADELPHIA 7, PENNA.  
CABLE: "JORDONREF"  
PLANT, PHILA., PA.

## 'Stop-Gap' Equipment Shows GI's Worth Of Refrigerated Fixtures In New Grocery

FAIRBURY, Neb.—Refrigeration proved to be the key to the magic formula which enabled two ex-G.I.'s to take over a run-down grocery store here and, in a year's time, boost the monthly sales from a few hundred dollars to over \$5,000.

The store, now the Hempel Brothers grocery and market, was run by two persons and business was on the down grade when Henry and Rollin Hempel returned from the army and navy, respectively, and cast about for a business of their own.

Now the store keeps seven persons busy on week days, with an extra man in the meat department on Saturdays.

### OUT OF THE 'GROCERY' CLASS

The store did primarily a grocery business before the Hempel brothers took over, and missed out on the meat, dairy products, and fresh vegetable trade, except for a few luncheon meat varieties. The new owners laid out plans to include a complete meat department with other sections for vegetables, eggs, and dairy products. All the old shelving and fixtures were torn out, the basement cleaned up and the rats evicted, and soap, water, and elbow grease applied in liberal quantities.

Biggest problem was getting refrigerated display cases and storage facilities. Services of an experienced butcher, Eugene Diller, were secured, and the three men set out to look for equipment, visiting St. Joseph, Mo., and Lincoln and Omaha, Neb., without being able to locate anything but used equipment on which the price was plenty high.

### USED 'COMMISSARY' UNIT

Finally they got a large commissary-type unit in gleaming white enamel, which solved the question where eggs, vegetables, and dairy products were concerned. There were separate compartments for each of these commodities, and space also for some meat storage. They decided to build their own walk-in box for meat, and put in an 8 x 8-ft. box with 10-in. walls insulated with rockwool. An old door was found at a locker plant, purchased cheaply, cleaned up, and installed. Blower-type refrigeration was installed, and the box has been giving perfect service except for the fact that the business has outgrown the capacity of the refrigerator. The Hempel brothers plan to correct the situation when equipment becomes more easily available.

Acquisition of a refrigerated display case posed a knotty problem, until Mr. Diller remembered that there was an old case in town which was used in a market where he worked many years before. The Hempel brothers got it and went to work cleaning it up. All the glass was taken out and given the soap and water treatment. The case was scrubbed and re-

enameled, and a small refrigeration unit secured and installed in one of the end compartments. A small fan blowing over the coils kept the cold air circulating throughout the box, and it is now doing fair service in the store. The management has an order in for a new and larger case, however.

### PLAN MORE REFRIGERATION

Upshot of the entire matter is that business has been growing by leaps and bounds. Word-of-mouth advertising averted the newly-acquired cleanliness of the store, large selection of goods, courteous service and, most important of all, the fine meat and produce department, spread rapidly. The Hempel brothers admit their business venture succeeded faster and to a larger degree than they had anticipated, but they intend to keep on improving their equipment and service, and to build their operations around the refrigerated foods section.

### Odinot Holds Opening For Beaumont Headquarters

BEAUMONT, Tex.—Formal opening of the Odinot Air Conditioning & Refrigeration Co.'s headquarters at 805 Park St., Beaumont, was held recently.

The firm will serve Beaumont and the Beaumont trade area of southwest Louisiana and southeast Texas, handling exclusive lines of air conditioning, refrigeration, and electrical appliances.

R. G. Odinot is the owner, Gail Atkins is the general manager, and Percy Smith is the store manager.

Mr. Winters will have charge of the Boston, Syracuse, New York City, Philadelphia, and Washington regions. He joined Airtemp in April, 1945, as a district representative in the Dayton region.

Later, he was named a staff assistant to the vice president and general sales manager.

During the War, he served as Civilian Chief of Special Projects in the Maintenance Data Division, Air Service Command Headquarters.

Promoted



J. H. WINTERS

## J. H. Winters Manages Airtemp Eastern Division

DAYTON—J. H. Winters has been promoted to eastern divisional manager of the Airtemp Division, Chrysler Corp., according to H. A. Malcom, vice president and general sales manager.

Mr. Winters will have charge of the Boston, Syracuse, New York City, Philadelphia, and Washington regions. He joined Airtemp in April, 1945, as a district representative in the Dayton region.

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## DESIGNED for SERVICE

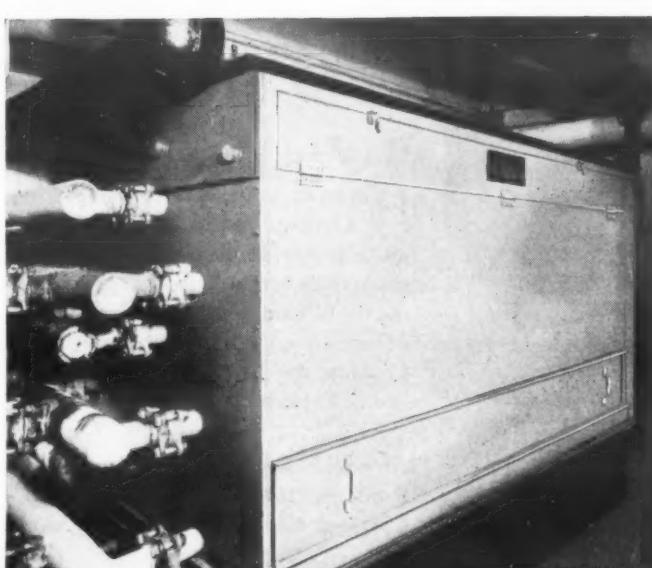


### AFCO

Full-flooded\* sub-zero\* low temperature evaporators, with engineered embossings, multiply speed and efficiency for maximum circulation. NO RESTRICTIONS provides economy in operation. Write for details.

Allied Freezer Corp.- 2822 Park Ave.- N.Y. 51

## Chilling Water With Accurate Control of Temperature



### NIAGARA BLOWER COMPANY

Over 30 Years' Experience in Industrial Air Engineering  
405 Lexington Ave. NEW YORK 17, N. Y.  
Field Engineering Offices in Principal Cities

INDUSTRIAL COOLING  
HEATING • DRYING

HUMIDIFYING • AIR  
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Write for Bulletin No. 100-AC.

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## British Producers Look to Heat Pump Method Of Heating as Coal Becomes Scarce, Costly

### Low Cost and Efficiency Cited by Plant Operator

LONDON, England—British manufacturers, up to now generally unexcited about the matter, are showing signs of an awakening interest in the possibilities of the heat pump.

Main credit for this is given to the increasing price and shortage of coal. Cheap coal, it has been pointed out, has retarded any great development in this country.

In 1930, T. G. N. Haldane's paper to the British Association of Refrigeration revived interest in the heat pump, the principle of which was first enunciated by Kelvin nearly 100 years ago. But development has been left to other countries.

In view of the changed fuel situation, manufacturers are being prodded to develop and produce complete heat pump plants. One of those doing the prodding is John A. Sumner, operator of the Norwich heat pump plant, said to be the first large machine built in England for heating a building.

Mr. Sumner presented his ideas on the subject during a meeting at the Hall of the Institution of Electrical Engineers.

### Analyzes Production Costs

Answering the criticism that manufacturing costs were prohibitive, Mr. Sumner said such a statement was not to be accepted without examination. Manufacturing costs, he declared, obviously would depend on design and production methods.

Elaborating on this point, the speaker pointed out that a compressor suitable for a 100 kw plant costs nearly £2,000 but a popular motor-car engine with the same swept volume was sold prior to the war at just over £100. He said it seemed possible to produce a heat pump plant at a price comparing favorably with that of an equivalent boiler with automatic firing.

(In an editorial review of the talk, the British magazine, *Modern Refrigeration*, noted that when referring to the £100 engine, "Mr. Sumner had in mind the popular V-8 motor but in comparing the two units he did not take into account the fact that the refrigerating compressor, while it can be a mass-production job, had to be machined to finer tolerances

**ENGINEERED to fit..**

**FORGED FLARE NUTS AND FITTINGS**

Prompt Shipment on most items

**Electrimatic**

2100 INDIANA AVE CHICAGO 16 ILLINOIS

Switzerland, where the more recent heat-pump developments are said to have started. He presented these facts on a plant in Zurich:

It consists of two 1,000 kw turbo-compressor Brown-Boveri pumps and one 850 kw Sulzer reciprocating pump which heat the town hall, university buildings, hospital, and about 90 private dwellings. Heat is taken from the River Limmat and the output is about 8,000,000 B.t.u. per hour. Temperature of the water circulating in the building is 158° to 167° and the average advantage 2.86.

Two installations in Ohio also were mentioned.

During the discussion period, it was pointed out that in Switzerland, capital cost was given little consideration due to a lack of fuel surplus, but that the Zurich plant had rapidly paid off its capital cost. One speaker said the performance figure of this plant was 15.

Replying to a statement regarding the need for some form of compressor other than the piston type (the cost of which was said to be much higher than the absorption or adsorption types), Mr. Sumner said a new two-stage compressor was to be installed shortly and that it was expected to greatly improve the efficiency of performance figure.

### Voice Should Not Go Unheeded

(*Modern Refrigeration* commented that no leading refrigerationist was seen to be present at the meeting. The magazine said that "it did not need that indication, however, to confirm the fact that most refrigeration manufacturers are completely absorbed in their efforts to meet demands for regular type cooling plant and that they cannot allow this determination to be side-tracked."

It was explained that this pump was constructed from a second-hand compressor—designed for working at a compression ratio of 3 to 1—but actually operating at 10 to 1—and such materials as could be obtained. The efficiency figure this year is expected to be 3.6. Source of heat is the river.

As further examples of the heat pump's practicality, Mr. Sumner showed illustrations of plants in

(It was suggested, however, that Mr. Sumner's voice "should not be unheeded, for the production of heat pump plants might fill a convenient role when manufacturers are looking for new outlets three, four, or more years hence.")

### Proctor Named V.P. of Engineering Specialty Co.

GARY, Ind.—Norman Proctor has been elected vice president in charge of sales for Engineering Specialty Co., Inc., refrigeration and air conditioning parts and equipment wholesaler here, E. M. Kirtland, president, has announced.

Mr. Proctor has been with the firm since his release from the armed forces where he had spent four years in New Guinea and Japan. Prior to his military service, he had wide experience in specialty selling in Chicago.

Mr. Kirtland stated that his seven year old company now has 25 employees in addition to five full time salesmen.

HEAT TRANSFER EQUIPMENT

**MARLO**  
COIL COMPANY  
SAINT LOUIS, MISSOURI

Every Motor Repair Shop  
needs this fully-  
illustrated easy-to-  
read Motor Parts  
Catalog — form  
MU-40.  
Send for your FREE  
copy today!

Wagner Electric Corporation  
ESTABLISHED 1911  
6421 Plymouth Avenue, St. Louis 14, Mo., U.S.A.  
ELECTRICAL AND AUTOMOTIVE PRODUCTS

### LOOK FOR THESE --- WHEN BUYING REFRIGERATION & AIR CONDITIONING SUPPLIES

- ★ One Stop Supply Service ★ Complete Stocks ★ Fast Delivery
- ★ Friendly, Courteous Service ★ Helpful Engineering Advice
- ★ Easy to use Catalog ★ Strictly Wholesale Prices

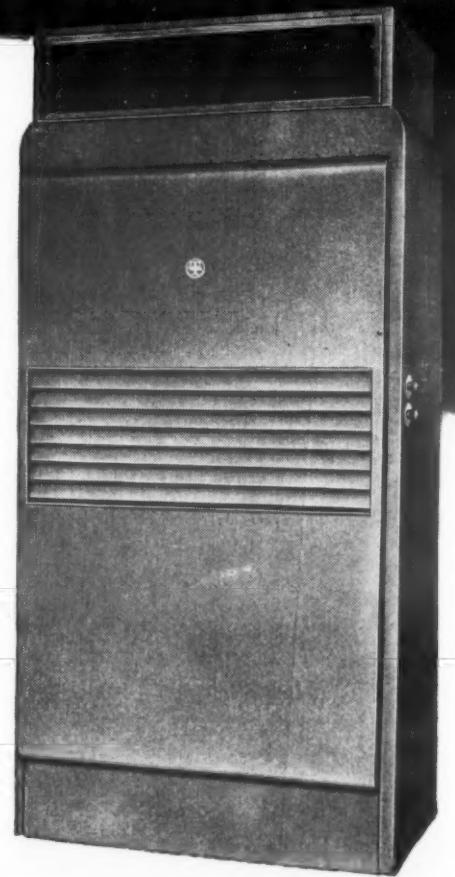
**PLUS** 17 years experience serving the Refrigeration and Air Conditioning Industry exclusively.

**CHASE** REFRIGERATION SUPPLY COMPANY  
546-48 West 119th St., Chicago 28, Illinois

Turn on  
Comfort  
with  
**TYphoon** AIR CONDITIONING

The TYphoon self-contained unit is a compact, all-purpose air conditioning system designed for trouble-free performance. The distinctive features found in TYphoon are the products of over 30 years practical air conditioning experience.

The liberally designed copper fin coils, the all-copper condenser, the removable supply grille section for use with duct system, the two way adjustable deflecting grille, the knock-out for fresh air connection, the easy accessibility to all movable parts, the painstaking engineering that goes into the making of each unit assures full capacity operation with a minimum of upkeep.



#### TYPHOOON UNITS

come in 3-ton, 5-ton and 7-ton sizes

#### TYPHOOON is nationally advertised.

A few dealer territories are still open.

Write for complete details

Compact • Fully Automatic • Easy to Install • Low Upkeep • Foolproof Operation • Attractive Appearance • Complete air conditioning, summer and winter • 3-Ton, 5-Ton, 7-Ton sizes • Full rated capacity, featuring TYPHOOON's exclusive flo-turn cooling coils and all copper condenser.

**TYPHOOON AIR CONDITIONING CO., INC.**

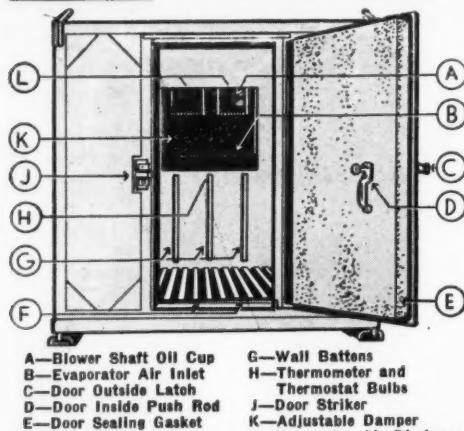
Division of ICE AIR CONDITIONING CO., INC.

794 Union Street

Brooklyn 15, N. Y.



## NEW! 125 CUBIC FOOT WALK-IN COOLER



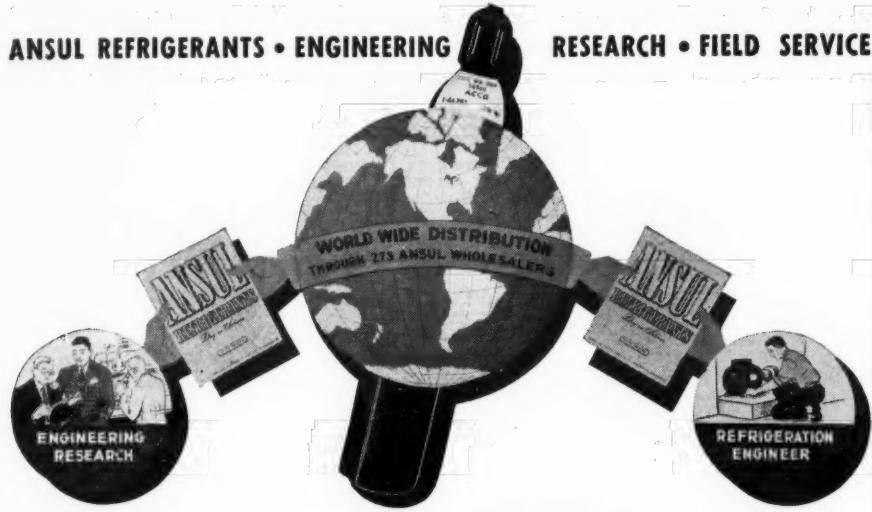
★ SELF CONTAINED  
★ FULLY AUTOMATIC  
★ GAS DRIVEN  
REFRIGERATION UNIT  
**Ideal for FROZEN FOODS,  
ICE CREAM STORAGE, PRO-  
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MOUNTING.**

- PACKED FOR EXPORT
- BLOWER COIL
- ALL METAL—Corkboard Insulated
- FULLY ASSEMBLED
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REFRIGERATION ENGINEERING CORP., 1518 Walnut St., Phila. 2, Pa.

ANSUL REFRIGERANTS • ENGINEERING

RESEARCH • FIELD SERVICE



*The Helping Hand  
that  
Spans the World*

### ANSUL TECHNICAL SERVICE

For more than 30 years the name ANSUL has been well known in the refrigeration industry...not only as a producer of high grade refrigerators...but, also, as a reliable source for authentic up-to-the-minute technical information on refrigeration processes and problems-in-practice.

Thirty years of accumulated data, plus intensive and exhaustive research in ANSUL's own research laboratories...covering many phases of refrigeration operations...have produced an Ansul library of technical data, unsurpassed in accuracy and scope.

ANSUL Technical service is your "First Assistant"...the "Helping Hand" that reaches Refrigeration and Service engineers everywhere...



ANSUL REFRIGERANTS ARE AVAILABLE AT LEADING WHOLESALERS EVERYWHERE

### ANSUL CHEMICAL COMPANY

REFRIGERATION DIVISION, MARINETTE, WISCONSIN

DISTRIBUTORS FOR KINETIC'S "FREON-11," "FREON-12," "FREON-21," "FREON-22" AND "FREON-113"

Coming Soon...  
A NEW TYPE OF HEAT EXCHANGER  
IT'S UNIQUE...IT'S REVOLUTIONARY...IT'S Superior

Watch for complete details



Superior Valve and Fittings Co.

1509 WEST LIBERTY AVE., PITTSBURGH 26, PENNA.  
OFFICES IN PRINCIPAL CITIES · STOCKS: CHICAGO (6) · LOS ANGELES (15) · JOBBERS EVERYWHERE



## Frozen Food Store-Home Freezer Dealer Combination In South Bend May Test Chances of Both In Medium-Size City

By Phil B. Redeker

SOUTH BEND, Ind.—Some questions about the market possibilities of home freezers, and the chances of a frozen food specialty business, may be answered—at least in part—by the fate of a somewhat unusual business venture that was opened here Feb. 13.

The venture is a combination frozen food and home freezer retailing establishment under the name of the "Froz-In-Flavor Food Store" opened by William T. Miholich, 29-year-old veteran of the Armed Services.

There are several reasons why this venture should prove a fair test:

(1) Most previous ventures of this sort have been spotted in exclusive suburban or high income metropolitan areas where there might be a preponderance of "luxury buying" or "fad interest" to put it across. But South Bend is predominantly an industrial community with a population of between 100,000-150,000 and the store is located at 505 Lincolnway West, only a few blocks out of the downtown area, and certainly not spotted in any "high income" area.

(2) This won't be any half-hearted or slipshod effort. The "Froz-In-Flavor" store represents an original investment of about \$25,000 (which isn't going to be kicked around lightly); William Miholich is able and aggressive, this venture is something of a "dream come true" for him; he has the advantage of his own and his brothers' background in the refrigeration field; and finally since the venture tests some of the home freezer merchandising policies of the Whiting Corp., it is quite likely that Whiting will be interested in seeing that the venture gets every chance of success.

The store is offering the whole range of frozen foods. It is making something of a specialty of "Frozen Meal Units" (complete frozen food meals), it offers frozen meats and poultry of all kinds (Miholich having the services of a cousin who is a butcher and who selects and prepares the meats for freezing). Also available are frozen bakery goods, fruit juices, and even frozen dog food.

The venture looked like a winner on the official opening day. While some splash newspaper advertising no doubt drew crowds to the store, they were buying plenty of frozen foods from the five Tyler open-type frozen foods display cases, and they were evidencing considerable interest in the Whiting 4½ and 11-cu. ft. freezers, and the "HarderFreeze" upright home freezer model displayed.

And Miholich didn't do himself any harm publicity-wise when two of his first sales of Whiting freezers were to Frank Leahy, coach of Notre Dame's famed "Fighting Irish" football team, and to a member of the Studebaker family.

The venture had its inception in Miholich's belief, fostered when he was doing some serious thinking about his future during his tour of duty in the Navy, that the frozen food field offered opportunities in a pioneering sort of a way.

He outlined his plans to his brothers Fred and "Guff" who like himself had put themselves through college, and then had gone on to build a business in refrigeration and appliance distribution, sales, and service in this territory. Fred heads up the Femco Distributing Co., distributor of Whiting home freezers and appli-

ances which was attended by representatives of the press (including many from Chicago), representatives from South Bend consumers' and women's groups, and dietitians from local schools and hospitals.

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**Notre Dame's Coach In Step With the Times**

Football Coach Frank Leahy of Notre Dame (center) was one of the many visitors at the opening of the Froz-In-Flavor Food Store in South Bend, Ind. He not only stocked up frozen foods but ordered a Whiting home freezer from William T. Miholich (right), owner and operator of the store. At the left is Fred Miholich of Femco Distributors, Whiting distributor.

**Frozen Food-Home Freezer Store Represents An Investment of Close to \$25,000**

(Concluded from Page 22, Column 3)  
"home freezer investment" could be substantiated by figures which Whiting had collected:

**Home Freezer Cost**

Cost of freezer (4½-cu. ft.)	\$240.00
Divide cost over 5 yrs.—per yr.	48.00
Operating cost per yr.	10.50
Yearly cost	58.00
Av. family food budget	600.00
Av. savings (20%) with freezer	120.00

Deduct \$58 cost, leaves \$62 net per year or 26% savings.

In connection with the question of costs, Mr. Roberts said that the average monthly power consumption for the 4½-cu. ft. model was 42 kWh., and for the 11-cu. ft. model, 78 kWh. (In South Bend this would have meant monthly operating costs of 48 cents and \$1.56 cents, respectively).

Answering a question put by one of the feminine members of his audience, Mr. Roberts said that defrosting was not a problem because of the good seal around the opening, and that in the Whiting freezer there might be necessity for frost removal around the top opening edges once a year.

Failure of the power supply has thus far proven a negligible problem in home freezers, said Mr. Roberts. Smart dealers will provide some emergency storage spot, he said, or dry ice may be obtained to hold the food over the emergency.

If it has been operating, the home freezer will hold reasonably good temperatures for a considerable time, and the temperature will have to go beyond 11° F. before cherries will go bad, 18° F. on strawberries, and 20° on vegetables.

Menu for the all-frozen-food luncheon consisted of onion soup (from the Country Kitchen, Des Moines, Iowa); chicken ala king (College Inn); mixed vegetables (Cedar Green); French fried potatoes (Sno-Man); salad (Villa Moderne); clover leaf rolls (Frigid-Dough); and cherry pie (frozen in paper pie tin and baked without defrosting).

Here are a couple of other "frozen meal unit menus" which the store will specialize in:

**Dinner For Two**

Chicken Croquettes with Fresh Chicken Gravy  
Au gratin potatoes  
Pear salad  
Baking powder biscuits  
Serves two for \$1.50

**Epicure's Delight**

French onion soup  
Oyster cocktail  
Tenderloin steaks  
French fried potatoes

Peas and carrots  
Villa Moderne frozen salad  
Buttermilk biscuits  
Pineapple pie  
Servings for four persons \$5.98.

Miholich's store is long and narrow in shape. The Tyler self-serve open cases are arranged in L-shape along the side and across the back of the front three-quarters of the store. The home freezers are displayed along the other side. A checkout counter is at the front, by the door.

Chill and age room for meats is at the rear of the first floor, but the sharp-freeze and frozen storage space are in the basement.

Refrigeration machines installed include a 3-hp. and a 2-hp. condensing unit for the five cases (which are always below 5° F.); a 3-hp. unit for the sharp-freeze and chill room; and a ¾-hp. unit for the chill and age room.

Estimated monthly power bill for the store is \$60.

**Dennler Gets Pacific Post As Assistant District Mgr.**

BRIDGEPORT, Conn.—William H. Dennler, assistant to the general sales manager of General Electric's Appliance & Merchandise Department, has been appointed assistant Pacific district manager of appliance sales.

He is succeeded in his former position by Harold H. Mount, formerly accountant for the G-E heating device, fan and vacuum cleaner division.

Mr. Dennler, who will make his headquarters in San Francisco, was graduated from Iowa State College in 1932, came with General Electric one year later as a member of the Company's business training course in Schenectady, N. Y. In 1935, he joined the traveling auditor's staff, working out of Schenectady, and then shortly was transferred to Bridgeport.

Starting in 1940, he spent a year with the district services section, traveling among appliance dealers. Then he became connected with the credits and collections division. In 1942, he was named supervisor of personnel placement, and two years later, he became assistant to the general sales manager.

**C. B. Foster Opens Dealership**

UNION, S. C.—With Charles B. Foster as proprietor, Foster's Radio & Electric Sales Service has opened for business at 4 E. South St.

**Apex Expects '46 Profit Despite Heavy Losses For First Half Year**

CLEVELAND—Despite heavy losses during the first half of 1946 Apex Electrical Mfg. Co. expects profits for the year ended Dec. 31 to come close to the \$400,000 mark.

This "tentative estimate," released by President C. G. Franz in a letter to stockholders, would approximate the firm's 1945 net profit of \$404,519. Although he emphasized the prediction was "subject to change," Mr. Franz revealed that sales volume in recent months has been about \$2.5 million, or three times the prewar business.

Primarily responsible for the upsurge in profits are the ending of price controls and marked increases in production, Mr. Franz stated. This "gave us the right to price our products with relation to actual costs [and] provides the necessary margin for successful operation of our business."

In respect to the boost in output, he commented, this has been effected through "better plant facilities, greater familiarity of operators with their work, and a willingness on the part of employees to raise the level of output. Favorable labor relations are contributing materially to the result in this current period and seem likely to continue because of a most cooperative attitude."

During the early months of last year, however, a costly reconversion program and material shortages, combined with strikes and price control to cut heavily into Apex earnings, it was added.

As a result of some \$900,000 spent in 1946 on plant rehabilitation and expansion, Mr. Franz foresaw production of washers, vacuum cleaners, and ironers reaching roughly 720,000 units this year. "This is well within the capacity of our plants," he maintained.

Not included in the calculations for the immediate future is the new Apex automatic washer, Mr. Franz disclosed. He pointed out that the new washer is not likely to have a serious bearing on the volume or operating results until the latter part of the year. Nonetheless, present plans anticipate "a very large business on the washer."

To handle the greatly increased volume, Apex had been mapping out a refinancing program for preferred and common stock. However, the new plan has been temporarily held in abeyance, remarked Mr. Franz, due to "the downward trend of the securities market." For the time being the company's additional capital requirements are handled through bank credit.

**Millbrae Creamery Building \$100,000 Frozen Storage Plant**

MILLBRAE, Calif.—Following receipt of CPA approval, work has begun on a new \$100,000 frozen food locker plant for the Millbrae Creamery here. The basement floor will be equipped with 500 lockers to start, which may be increased to 750. The main floor will be used for the sale of frozen food.

The plant will be located on East Broadway and will be reinforced concrete throughout, measuring 50 x 100 ft. According to plans disclosed by Earl F. Trembley of the Millbrae Creamery, 325 El Camino Real, equipment and installation costs will run to \$50,000 with the balance spent on actual construction. Mr. Trembley is being assisted by his three sons.

**Walsworth Promoted To Engineering Post**

FRANK W. WALSWORTH

\* \* \*

MUSKEGON, Mich.—Frank W. Walsworth has assumed the duties of assistant refrigeration engineer for the Brunswick-Balke-Collender Co. here, according to G. D. Whiting, chief engineer.

Formerly refrigeration service manager, Mr. Walsworth will now be in charge of design, development, and engineering for the company. He fills the vacancy left by the resignation of M. P. Penn.

Mr. Walsworth has been with Brunswick for 16 years, during which time he has served in several engineering capacities.

**KRACK**  
ENGINEERED  
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REFRIGERATION SUPPLIES, INC.

Atlanta Jacksonville  
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"The South's Largest  
Refrigeration Supply Jobber"

A **MASTERPIECE**  
in  
Thirst-quenching Convenience

OASIS  
ELECTRIC WATER COOLER  
You're always Sure with an OASIS-built by EBCO, pioneers in the electric water cooler field.

The EBCO Mfg. Co.  
401 W. Town St.  
Columbus 8, Ohio



# THORS

Reg. U. S. Pat. Off.

THORS is a clean, odorless, grease-like product specifically developed for treatment of refrigerator room doors, coils, and plates. Easy to apply, it prevents sticking of freezer doors... makes ice and frost removal 3 times faster! Here's how it works:

**SAVE REPAIRS ON FREEZER DOORS!**

Simply swab THORS on clean contact surfaces of doors and jambs. This eliminates freezing or sticking of the doors due to ice and frost accumulation... seals the surfaces against loss of refrigeration and build-up of frost or ice. Gentle brushing once a week removes any light frost formed. Reapplication of THORS is not required oftener than every 5 or 6 brushings. THORS is non-deteriorating on most gasket materials.

**REDUCE DOWNTIME ON REFRIGERATION COILS AND PLATES — save on labor!**

A thin film of THORS on coils and plates retards ice formation... frees ice quickly and reduces clinging when defrosting is necessary. When THORS is used, frost removal takes only one third as long. For example, freezer rooms requiring 70 hours downtime for defrosting by hand-scraping on untreated

coils are defrosted and back in service in 20 hours when THORS is used.

**THORS PROVIDES PIPE PROTECTION**

Helps prevent corrosion and cracking! THORS helps prevent rust and corrosion on black iron, alloy, steel and galvanized metal surfaces. By reducing heat input during hot gas or hot brine defrosting, THORS reduces the hazard of cracking pipes.

Now you can eliminate excessive defrosting time... increase general freezer plant operating efficiency—with THORS! Just send in the attached coupon for complete information!

**STANCO DISTRIBUTORS, INC.**

216 W. 14th Street, New York 11, N.Y.

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**WILSON**  
SELF-CONTAINED  
AUTOMATIC  
HIGH WATER LEVEL  
**ZERO-FLOW**

**STOPS MILK SPOILAGE**

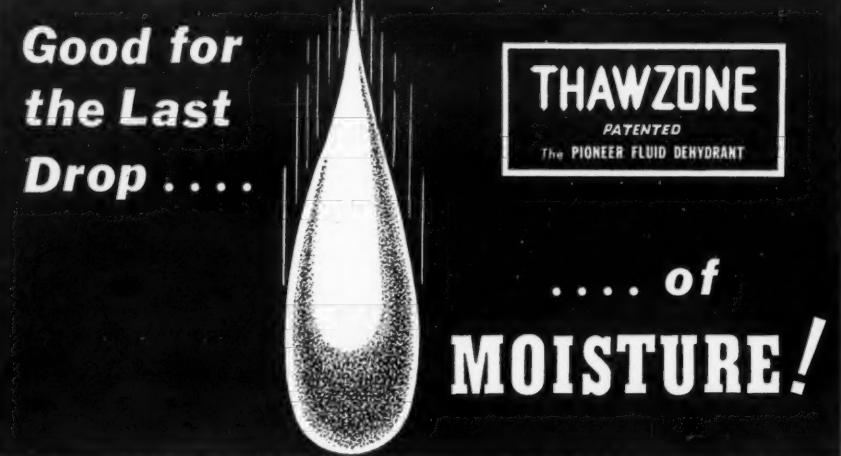
Packaged-Unit Milk Cooler  
Sizes from 4- to 24-can capacity

**COOLS THE DANGER ZONE FAST**

**TO CAPTURE AND HOLD THE FARM MARKET**  
Specify Genuine "Refrigeration by Wilson"

\* FARM MILK COOLERS • FARM FREEZERS • FARM REACH-IN REFRIGERATORS • FARM WALK-IN REFRIGERATORS  
For Franchise Information, Address Dept. II WILSON REFRIGERATION, INC.

Smyrna, Delaware



Thawzone is not only excellent for most cases of moisture in refrigeration systems, but, paraphrasing a famous slogan, it is good for that last drop of moisture which becomes sidetracked or "trapped".

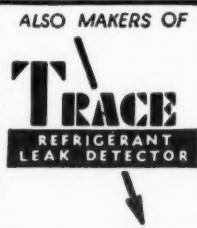
Thawzone is a moving dehydrant. It circulates, searches out that "last drop", destroying it chemically wherever it finds it. Sold by refrigeration supply wholesalers in the United States and Canada.

A TINY AMOUNT → A BIG JOB ← SMALL COST

... and we haven't raised our prices!

**HIGHSIDE CHEMICALS CO.**

195 VERONA AVE. NEWARK 4, N. J.



### New Airserco Unit Tests Valve Super-heat Setting

PITTSBURGH—A new instrument designed to test and set the superheat requirements for all types of thermostatic expansion valves has been announced by Airserco Mfg. Co., Inc. here.

Called the TXV Tester, the new instrument is said to be the first of its kind offered to the refrigeration industry.

The TXV Tester is claimed to: Indicate by gauge readings the actual super-heat setting of the valve being tested.

Examine the true performance of the thermo valve by taking it in and out of its operating range.

Enable the service engineer to set quickly any thermo valve for any refrigerant.

Determines the holding adjustment and condition of the power element.

Airserco says that the tester is ready for immediate shipment. It will be distributed through the same outlets as its other products.

### Welsh Heads Service Center For G-E In Cleveland

CLEVELAND—Appointment of L. C. Welsh as manager of the General Electric Appliance Service Center here has been announced by T. J. Killeen, manager of warehousing and distribution for the company's product service division.

When Mr. Welsh came with General Electric in 1930, he was connected with the cost department in Schenectady, N. Y., and two years later with the treasury department there. In 1934, he was transferred to the specialty appliance division in Cleveland, and five years later, he was made supervisor of the returned materials section in Bridgeport.

## Servicing Truck Refrigeration Units

**Editor's Note:** Additional information on the service operations that can be performed when the condenser or lower coil of the reverse cycle Trail-Aire truck refrigeration unit is pumped down is presented in this instalment. Details on how to pump down the condenser appeared in last week's instalment. This series was prepared in collaboration with Henry O. Kirkpatrick, chief engineer of Advance Mfg. Co., manufacturer of the unit.

### Instalment No. 22

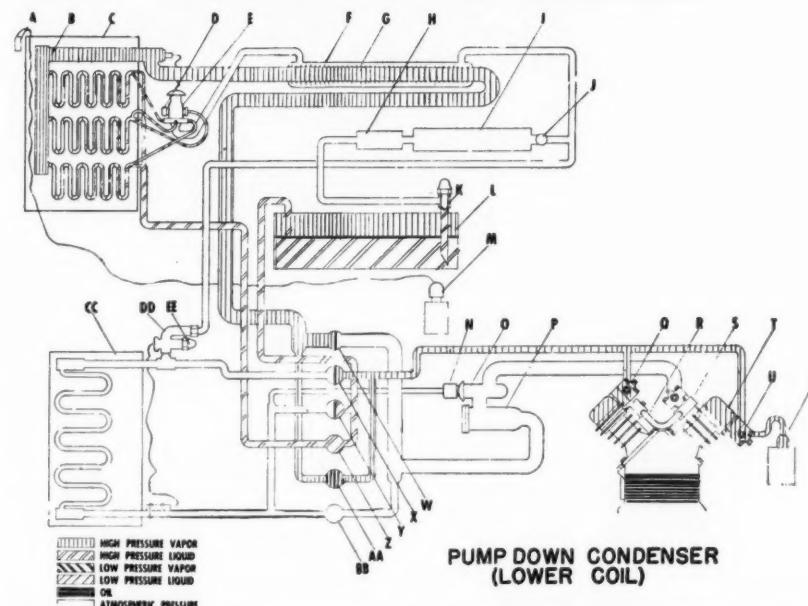


Fig. 24—State of the refrigerant in all parts of the Trail-Aire system when the condenser coil (CC) has been pumped down is shown above.

Key to drawing: A—thermostat bulb; B—evaporator suction header; C—evaporator coil (upper); D—expansion valve adjusting stem; E—multi-outlet thermostatic expansion valve; F—heat exchanger; G—heat transfer fins; H—liquid line strainer; I—dehydrator; J—liquid indicator; K—receiver service valve; L—receiver tank; M—thermostatic temperature control; N—load limiting valve bellows; O—suction load limiting valve; P—suction line strainer; Q—compressor discharge service valve; R—compressor suction manifold; S—compressor suction service valve; T—compressor; U—compressor discharge service valve; V—high pressure cut-out; W—hand valve suction (cooling); X—hand valve discharge (cooling); Y—hand valve liquid return (cooling); Z—hand valve liquid return (heating); AA—hand valve discharge (heating); BB—hand valve suction (heating); CC—condenser coil (lower); DD—thermostatic expansion valve; EE—thermostatic expansion valve adjusting stem.

### Adjusting Expansion Valve

The thermostatic expansion valve (DD) inlet is connected to the  $\frac{1}{8}$  in. liquid line with a  $\frac{1}{8}$  in. SAE flare nut connector. The outlet of the valve is a  $\frac{1}{4}$  in. female pipe thread, and when connected to the line screws onto a  $\frac{1}{4}$  in. male pipe thread for easy removal of the valve. It is adjustable by use of the adjusting stem (EE), and has an internal liquid screen on the inlet side of the valve.

not be replaced, for it can be adjusted in the following manner:

The bellows (N) may be removed with the system pumped down as shown in Fig. 24 by disconnecting the  $\frac{1}{4}$  in. SAE flare nut and unscrewing the bellows from the valve (O). There is a bottom plate on the bellows which is held in place by four screws, nuts, and lock washers. Remove the bottom plate and take out the  $\frac{1}{8}$  in. o.d. spacer tube.

Shortening this spacer tube by  $\frac{1}{16}$  in. will raise the pressure setting of the valve approximately 8 lbs. higher on the cooling cycle.

Likewise, lengthening this space tube  $\frac{1}{16}$  in. will lower the setting of the valve approximately 8 lbs.

### Removing Hand Valve (X)

The load limiting valve (O) is soft soldered into the  $1\frac{1}{2}$  in. o.d. suction line. It serves to automatically limit the suction pressure at the compressor inlet to 30 lbs. to prevent overloading the compressor. When the suction line pressure falls to 30 lbs. the valve (O) begins to open, and as the pressure falls below 30 lbs. the valve opens fully. It is protected by the large capacity suction line strainer (P).

### Adjusting Bellows of Load Limiting Valve

The load limiting valve bellows (N) has in it a  $\frac{1}{8}$  in. o.d. guide tube and a  $\frac{1}{8}$  in. o.d. space tube. The length of the  $\frac{1}{8}$  in. o.d. spacer tube determines the setting of the load limiting valve (O).

This valve is set at the factory at 30 lbs. high for the cooling cycle and between 5 and 10 lbs. on the heating cycle. Should the setting of this valve become too low or high, it need

not be replaced, for it can be adjusted in the following manner:

The bellows (N) may be removed with the system pumped down as shown in Fig. 24 by disconnecting the  $\frac{1}{4}$  in. SAE flare nut and unscrewing the bellows from the valve (O). There is a bottom plate on the bellows which is held in place by four screws, nuts, and lock washers. Remove the bottom plate and take out the  $\frac{1}{8}$  in. o.d. spacer tube.

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Likewise, lengthening this space tube  $\frac{1}{16}$  in. will lower the setting of the valve approximately 8 lbs.

### Replacing Lines

When repairing or replacing any

of the lines connected to the condenser coil (CC), it is best to remove the  $\frac{1}{4}$  in. SAE flare nut connected to the load limiting valve bellows (N) before doing any soldering. This provides an adequate vent for the lines and the condenser coil.

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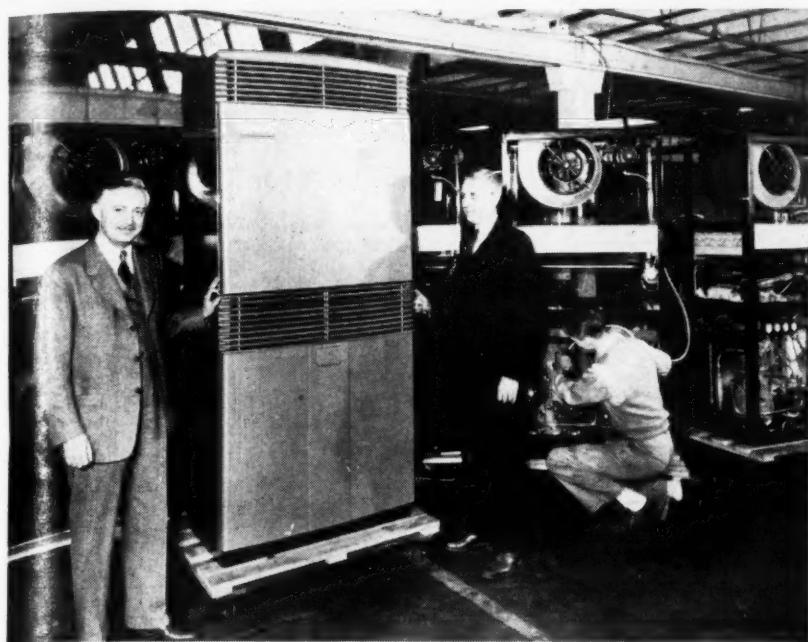
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## Gemco Completes First Conditioners



John H. Shreiber, Gemco president, and Ernest Gygax, chief engineer, view the first air conditioning unit to come off the company's production line. The unit, which was completed earlier this year, was delivered to the Midtown Engineering Co. Production is expected to reach a 1,000 monthly rate by mid-summer, company officials declare.

## Borden Co. Incorporates, Mechanical Heat & Cold Revises Sales Plan

BOSTON—Incorporation of the A. E. Borden Co., local refrigeration parts and supplies wholesaler, under Massachusetts law has been announced by Adrian E. Borden, president, and Chester E. Borden, treasurer.

The new corporation, named the A. E. Borden Co., Inc., has acquired all the assets and has assumed all the liabilities of the former partnership, the announcement said.

No change of ownership of the business has occurred. The former partners are the officers and stockholders of the corporation. The announcement added that the business is at the same location.

DETROIT—Mechanical Heat & Cold, Inc., engineering contractor, is revising its sales program to incorporate its activities into one distributing organization with Alvin O. Fredrick as sales manager. These plans were announced as the firm celebrated its 25th anniversary.

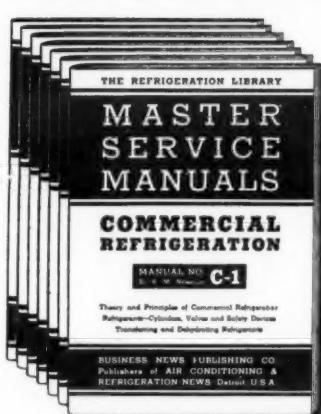
The company will continue to operate an engineering contract division for the purpose of designing and installing larger air conditioning central plant systems.

Mr. Fredrick was dealer representative for Westinghouse Supply before he came to Mechanical Heat & Cold as merchandise manager.

## COMMERCIAL REFRIGERATION

**Thousands of refrigeration men have ordered these useful books.**

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by K. M. Newcum

**MANUAL NO. C-1**—The theory and principles of refrigeration presented in a more complete manner than in household manuals. Properties of refrigerants, including effect on lubricating oils. Types of refrigerant cylinders, valves, and safety devices. Methods of drying and transferring refrigerants. 96 pages. 59 illustrations. 10 tables. Price \$1.00.

**MANUAL NO. C-2**—Installation and service methods. Detailed information on commercial condensing units and their component parts. Water regulating valves, both electric and pressure-actuated types. Flooded evaporators and low side float valves. Two-temperature flooded systems. 112 pages. 108 illustrations. Price \$1.00.

**MANUAL NO. C-3**—Installation and service methods continued. Chapters on expansion evaporators, including blower units and all modern types. Thermostatic and temperature controls. Refrigerant control valves. Electric motors, starters, overload relays. 144 pages. 116 illustrations. 7 tables. Price \$1.00.

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## Grade-A Market:

### Electrical Milk Cooler Helps Dairy Farm In Nebraska To Produce Better Milk

LINCOLN, Neb.—The use of electrical refrigeration equipment in the dairy farming business is paying dividends for Everett Owens, dairy farmer near Lincoln, who was praised publicly recently by state officials for his production of "good, clean, fresh, safe milk." Mr. Owens started milking about 30 years ago when his wife's father gave him a cow for a wedding present, and six years ago his dairy started producing grade-A milk after having produced bottled milk for 13 years.

"Producing milk of grade A standard means an increase in barn, equipment, and dairy herd costs," he declared, "but when you are once set up, it's more convenient and you have the satisfaction of producing a product of which you can be proud."

Increased price paid for grade A milk compensates for the increased overhead and leaves a fair margin of profit besides, Mr. Owens added. The eight-can electrical cooler he uses in his milk house was purchased when he found it impossible to keep the bacteria count within the standard specifications with his water cooling system.

Rather than rebuild his water system, he believes he made a good choice in installing the mechanically-refrigerated cooler. He predicted that the refrigerator manufacturers and dealers will find an extensive market for electrical coolers in coming years, as more farms become

electrified and more farmers improve their milk production to grade A standards.

Grade A as applied to milk is a classification given to milk of a certain high standard by the United States public health service, but which varies in different communities according to the standard which is adopted by an ordinance in the particular cities or communities. It means a high quality milk produced and processed and distributed under conditions which enable the consumer to obtain milk in as nearly as possible the same condition as it came from a healthy cow. Temperature control is highly important.

## Modern Home Equipment Is Headed by L. F. Mackley

TOLEDO—Modern Home Equipment, Inc., has been opened at 2002 Glendale Ave. L. F. Mackley is president. Dwight Curtiss has been named manager of the store and Jerry Kotecki has been named serviceman.

## Slade Appliance Co. Opens

THOMASTON, Ga.—The Slade Appliance Co. recently opened here at N. Center St. to handle electrical appliances.

## Consolidated Industries Names Gen. Sales Mgr.



W. W. TIMMIS

LAFAYETTE, Ind.—W. W. Timmis has been appointed general sales manager for Consolidated Industries, Inc., manufacturer of low temperature and heating equipment, the company has just announced.

Most recently director of the Metal Products Div., National Housing Agency, Mr. Timmis was commissioned commander in the Navy in 1942. Before this he was director of the Plumbing and Heating Div., War Production Board.

## DRAFT-MASTER BRINGS TO YOU CHAMPIONS IN SELLING ABILITY

SETTING THE PACE IN CUSTOMER ACCEPTANCE AND DEMAND

### BEVERAGE COOLERS

Stainless Steel EXTERIOR

Aluminum INTERIOR

#### SIZE

39 inches high  
28 inches wide

4, 6, or 8 feet long

CAPACITY (12 ounce bottles)

4-foot 15 cases

6-foot 25 cases

8-foot 36 cases

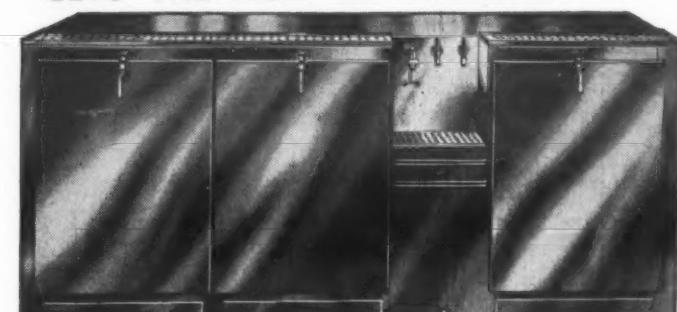
Larger Coolers Available

Write for Particulars



All models available with built-in Glass Filler and Water Cooler as shown in circle, at slight extra cost.

## DRAFT-MASTER BEER DISPENSING SYSTEM GETS THE NOD OF EXPERTS



Junior Under Bar  
Draft Beer Dispensing System  
Aluminum Interior and Exterior  
2 - 3 and 4 Keg Capacity  
Instantaneous Cooling  
Designed to handle up to 25 half barrels per week.  
Larger Systems Available  
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Combination DRAIN BOARDS and COCKTAIL UNITS — WALK-IN COOLERS, All Sizes  
DISPENSERS, All Sizes — COMPLETE TAVERN EQUIPMENT

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General Offices, Toledo 1 - Factory, Defiance, Ohio, U.S.A.

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**GENUINE MAYFLOWER**  
AIR CONDITIONERS  
 Air Conditioners Licensed Under U. S. Patents No. 2,048,246 No. 2,055,528  
MAYFLOWER PRODUCTS, INC.  
125 5th St., Richmond, Ind.

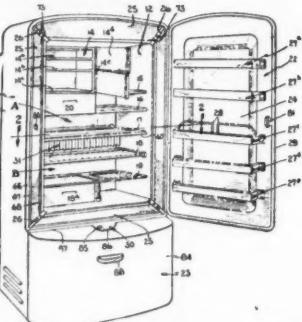
## TECHNICAL WRITER

To write complete home study courses in Refrigeration and Air Conditioning from information supplied by our engineers. Must be able to write in language easily understood by the average layman. State experience and financial arrangement desired. Box 2248, Air Conditioning & Refrigeration News.

## PATENTS

### Week of Dec. 17 (Continued)

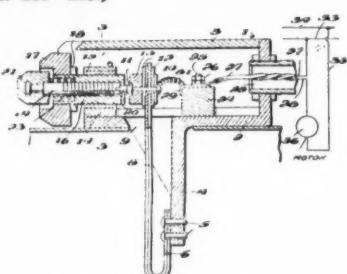
**2,412,904. REFRIGERATING APPARATUS.** Roland H. Money, Mount Healthy, and John W. Craig, Cincinnati, Ohio, assignors to The Crosley Corp., Cincinnati, Ohio, a corporation of Ohio. Original application Dec. 10, 1941, Serial No. 422,422. Divided and this application Feb. 26, 1944, Serial No. 524,062.



1. In a refrigerator cabinet having a food storage compartment, the combination comprising a horizontal perforate shelf within the compartment for dividing the same into respective upper and lower sections, a heat absorbing unit for the upper section and a heat absorbing unit for the lower section for respectively maintaining relatively low humidity conditions in the upper section and relatively higher humidity conditions in the lower section, a door for said food compartment, the door having a recessed portion interiorly thereof and having a plurality of storage shelves disposed within said recess, one of said door shelves being imperforate, a resilient sealing strip disposed along the forward edge of said first mentioned horizontal perforate shelf for making a sealing engagement with an edge of said imperforate door shelf when the door is closed, and an adjustable device disposed along the rear edge of the first mentioned horizontal perforate shelf for closing the perforations thereof.

### Week of Dec. 24

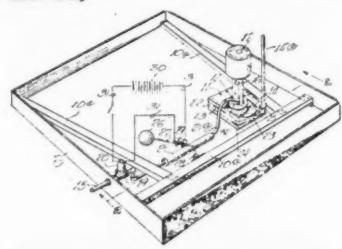
**2,413,100. THERMOSTATIC SWITCH.** George W. Crise, Columbus, Ohio, assignor to Crise Electric Mfg. Co., Columbus, Ohio, a corporation of Ohio. Application May 27, 1943, Serial No. 488,706. 7 Claims. (Cl. 200-138.)



1. In a thermostatic switch, a bimetallic strip anchor at one end and adapted to have its free end deflected by temperature variations, a magnet carried by the free end of said strip, a contact movable in unison with the deflectable end of said strip and said magnet, a temperature controlling armature adjustably mounted to vary the spacing between one end thereof and said magnet, a differential varying element movable bodily with said armature.

ture and adjustable longitudinally and independently with respect to the armature, and a second contact carried by said element adapted to be brought into and out of engagement with said first contact upon deflection of said strip.

**2,413,138. WATER CONTROL FOR EVAPORATIVE COOLERS.** Archie S. Feinberg, Dallas, Tex. Application Oct. 20, 1944, Serial No. 559,533. 1 Claim. (Cl. 261-34.)



In a water control for evaporative cooling apparatus having fibrous filter mats the combination comprising, a make-up reservoir, a chamber in said reservoir closed except for a screened inlet in a vertical wall thereof, partially submerged in the water of said reservoir; a pump in said chamber whose discharge serves said mats, means for periodically introducing fresh water into the intake of said pump, means for bypassing a part of said pump discharge across said chamber inlet to divert foreign floating surface matter influenced by pump suction to prevent said foreign matter from being carried to said mats by said pump and means for electrically predetermining the water level of said reservoir.

## CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$2.50 per insertion. Limit 50 words.

RATES for all other classifications \$5.00 per insertion. Limit 50 words.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count.

### POSITIONS WANTED

**REFRIGERATION MECHANIC**—commercial, 1½ years experience, college graduate, married, age 29, Japanese, installing, servicing and maintenance up to 15 hp. multiplex units and temperatures. Good reference, now employed in New Jersey. Available after March 1st. BOX 2244, Air Conditioning & Refrigeration News.

### POSITIONS AVAILABLE

**WANTED: REFRIGERATION** mechanic, capable of installation and service all types equipment. Permanent job, good pay. RICHARDSON & RICHARDSON, INC., 88-90 Park Ave., Nutley, N. J.

**APPLICATION-SALES** engineer—position with fast growing refrigeration and air conditioning equipment manufacturer. 5 to 50-hp. condensing units. Located central west. Unusual opportunity for men with sales experience and refrigeration training, between ages of 28 to 35. Give full details, salary desired, etc. Sales Manager (confidential), 1016 East Columbia, Evansville, Ind.

**SALES ENGINEER** wanted: We have opening for young man capable of figuring locker plants and other low temperature applications. Our firm has excellent rating, located in Middle West. If you can qualify, your earnings can be over \$6,000 per year. BOX 2235, Air Conditioning & Refrigeration News.

**REFRIGERATION FIELD** service engineer—cover eastern seaboard and middle states for old established New York firm. Handle technical refrigeration service and liaison with national distributors, dealers, service organizations. Experience self-contained package units desirable. Mail complete resume experience, qualifications, age, willingness to travel, salary desired. BOX 2241, Air Conditioning & Refrigeration News.

**LOS ANGELES** refrigeration contractor wants aggressive man with commercial refrigeration sales experience, capable of assisting manager with creative sales promotion ideas, and capable of composing advertising. Refrigeration engineering experience very helpful, but not essential. Give full particulars in first letter. BOX 2243, Air Conditioning & Refrigeration News.

**SERVICE MANAGERS**—three—Middle Atlantic States and New England branch offices of long established refrigerated beer cooler manufacturer. Ability to work with service dealers and customers regarding service problems, is required. Expenses paid when away from base and car furnished. State qualifications and salary wanted. BOX 2247, Air Conditioning & Refrigeration News.

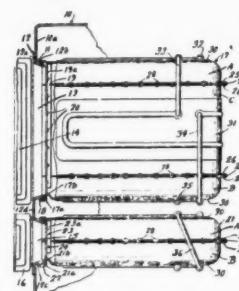
**SERVICE MANAGER**—to take charge of department—commercial and industrial work only—Cleveland, Ohio concern needs a man capable of holding down this job, must be fully experienced, be able to handle men, assume full responsibility—send full background and picture in first letter. BOX 2250, Air Conditioning & Refrigeration News.

**SALES EXECUTIVE** to represent nationally known Wisconsin manufacturer, commercial refrigeration equipment: Illinois, Indiana, Ohio, Missouri. Commercial refrigeration experience preferred. Advancement opportunity to sales manager—company having outstanding progress record. Possible net earning six thousand upward. Give complete particulars, education, past employment, earnings, references, photograph. Applications kept confidential. BOX 2251, Air Conditioning & Refrigeration News.

### EQUIPMENT WANTED

**LARGE DISTRIBUTOR** of commercial refrigeration can use for immediate delivery, porcelain or dulux finish reach-in boxes with coils in 30, 40, or 60 cubic feet capacities. Furnish complete description and pictures. BOX 2246, Air Conditioning & Refrigeration News.

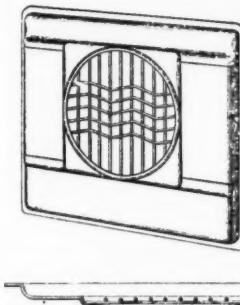
**2,413,233. REFRIGERATOR LINER CONSTRUCTION.** Bernard C. Johnson, Mundelein, Ill., assignor to Houdaille-Hershey Corp., Detroit, Mich., a corporation of Michigan. Application Sept. 18, 1944, Serial No. 554,610. 5 Claims. (Cl. 62-126.)



U-shaped piece with one end of the duct on the bottom wall of the bottom pan, said pans and U-shaped piece cooperating to define a forwardly projecting front edge around the open front of the casing, said bottom wall of bottom pan having an upwardly projecting head adjacent said forwardly projecting edge, and an angle strip inside of the casing extending along the side walls and top thereof and having an inwardly projecting leg adjacent the forwardly projecting edge cooperating with said head to form an inside abutment wall around the inlet mouth of the casing.

### DESIGNS

**146,100. DESIGN FOR A FACE PLATE FOR AIR CONDITIONERS.** Bryant Essick, Los Angeles, Calif. Application Oct. 10, 1945, Serial No. 122,707. Term of patent 7 years. (Cl. D62-4.)



The ornamental design for a face plate for air conditioners, as shown.

(To Be Continued)

\$1.40 per sq. ft. Cork insulation prices on request. Limited number new refrigeration units, coils, etc. available. Send us your requirements. **REFRIGERATION SPECIALTIES, INC.**, 721 Flushing Ave., Brooklyn 6, N. Y.

**IMMEDIATE DELIVERY**—new Copeland units with motors. Model 204 AFL-2 hp—1PH—220 V—\$345. Model 304 WFL-3 hp—1PH—220 V—\$465. New sectional storage coolers. 6 ft. wide, 8 ft. long, 6 ft. 6 in. high. Door in end. Dry fir lumber. 4 in. insulation, \$365. M. E. ROBERTSON, 2013 Columbia Road, Madison, Wis.

**FLOAT REPLACEMENTS.** For replacing defective high side floats on all household units. Regular charging connection, capillary tube setup, internal strainer and exact mounting plate. Part #2000-Westinghouse (4 hole plate), and #2010 (3 hole plate); Part #2020-Gibson #2030-General Electric (DR-1 & DR-2). Part #2040—for general replacement (undrilled plate). \$6.75 each. **SEALED UNIT PARTS CO.**, 3097 Third Ave., New York 56.

**SEALED CROSLEY TERMINALS.** Installed from the outside in a few minutes without opening the compressor. Corrects leaky terminals on all Crosley "F-12" units. Set of three \$6.75 (Part No. 1020). Installation tool \$1.65. Immediate delivery. Money-back guarantee. **SEALED UNIT PARTS CO.**, 3097 Third Ave., New York 56, N. Y.

**FRIGIDAIRE METER-MISER** Terminals. Installed from the inside. Fits compressors with bottom-mounted terminals (Part No. 1060). Set of three \$2.85. **WESTINGHOUSE TERMINALS**. Installed from the inside. (Part No. 1030). Set of three \$2.85. **SEALED UNIT PARTS CO.**, 3097 Third Ave., New York 56, N. Y.

**NORGE CHECK VALVES.** For open-type units. (Part No. 1040). \$2.55 each. **SEALED NORGE** terminal, packing washers. For repairing leaky terminals. Installed from the outside in a few minutes. (Part No. 1050). Three sets (9 washers) \$1.00. **SEALED UNIT PARTS CO.**, 3097 Third Ave., New York 56, N. Y.

**SEALED NORGE** terminals. Complete assembly. Replaces shorted terminals. Installed from inside. (Part No. 1100). Set of three \$2.85. Sealed Crosley terminals. Installed from inside. Part No. 1070 for SO2 models. Part No. 1080 for "F-12" models. Part No. 1090 for "F-21" models. Set of three \$2.85. **SEALED UNIT PARTS CO.**, 3097 Third Ave., New York 56, N. Y.

**UNDERBAR WORKBOARDS**, cocktail stations, dry beverage coolers and beer dispensers designed for water bath, circulating air, Emprite tanks and Pendlo cooling systems for immediate delivery, by one of the oldest bar interior equipment manufacturers in the East. **SUPREME METAL FABRICATORS, INC.**, 27 Rodney St., Brooklyn 11, N. Y.

1/2-1-1½-2 hp. condensing units complete with single phase motors. Meat and Bone cutters complete with both 1 and 1½ hp. motors. BOX 2204, Air Conditioning & Refrigeration News.

**NEW** 3 hp. water cooled compressors 3/200/440 volts—standard make machines. 5/8 in. copper tubing. BOX 2245. Air Conditioning & Refrigeration News.

**FRANCHISES WANTED** covering greater Chicago area desires one or two additional lines for sale—wholesalers and manufacturers in refrigeration, air conditioning or heating industries. BOX 2249, Air Conditioning & Refrigeration News.

**FRANCHISES AVAILABLE** A FEW territories open for the Magic-Temp frozen food merchandiser produced by skilled Mohawk Valley craftsmen of the same integrity as the Savage Cabinets and Brunner condensing units; all products of the Mohawk Valley. **MAGIC-TEMP COOLER CO.**, 311 John St., Utica, N. Y.

**BUSINESS OPPORTUNITIES** ATTENTION HOME freezer manufacturers: Patent rights for sale or lease on device that will make perfect ice cream in any low temperature storage unit. Excellent accompaniment with your freezers. This is a proven product. BOX 2234, Air Conditioning & Refrigeration News.

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2/24/47

# Refrigeration Problems And Their Solution

By P. B. Reed  
For Service and Installation Engineers



Manager, Refrigeration  
and Air Conditioning  
Division, Perfex Corp.

## Single-Phase and 3-Phase Systems(2)

### THE NETWORK SYSTEM

Another system that is becoming increasingly popular in large cities especially in the downtown sections is called a "Network" system, because the secondaries are all tied in together to form a network. From this network either power or lighting can be taken. (See Fig. 4.)

The three-phase primaries are fed into three-phase transformers so wound that instead of having 220 volts on each phase, they have 208 volts. Then a neutral is taken from the midpoint of the transformer and between this neutral and any hot wire is 120 volts. The 120 volts is suitable for lighting, appliances, and small single-phase motors; the 208 single-phase for larger single-phase motors and other 208 volt single-phase uses and the 208 volts three-phase for three-phase motors.

Standard 220 or 230 volt three-phase motors should not be used on 208 volt. They will not develop the full load of which they are capable without overheating. Motor manufacturers supply 208 volt motors for these applications.

### POWER FACTORS IN BRANCH LINES

It is not necessarily true that the power factors in all parts of the circuit of a three-phase system or a 110-220 three-wire single-phase circuit will be the same. One phase or branch circuit may have more motors

### This Circuit Has Wider Use Today

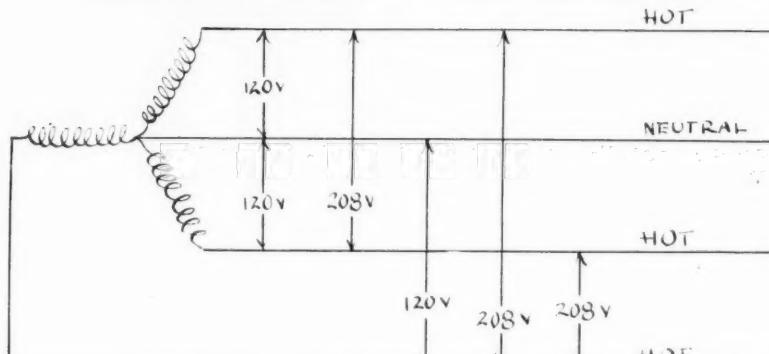


Fig. 4—This diagram shows how the various voltages are derived in the "network" wiring system which is coming into increasing use. The lines here come from a "star"-connected three-phase transformer with a neutral.

on it than another so it will have greater inductance and consequently the current in that branch will lag the voltage more than it does in another branch.

In fact, one branch circuit may have little or no inductance, such as a lighting circuit and may have almost 100% power factor. Then one branch circuit might have a preponderance of capacity reactance in it which, although it would mean a lowered power factor in that circuit, it would be a leading current which would offset in the main circuit, the lagging current in another branch which was preponderantly inductive.

### POWER FACTOR OF LITTLE CONCERN TO THE ORDINARY USER

The user of comparatively small amounts of alternating current need not be too much concerned about power factor. He pays, not for volts and amperes, but for watts as measured by the meter. If the power factor is low, the watt-hour meter corrects for it and the user still pays for the wattage (or k.w.'s) that he uses.

The power company is concerned though, for a low power factor on their system ties up some of the capacity of their generators which are rated in kva. (kilo-volt-amperes) rather than kw.

Also, a low power factor means a high amperage for a given wattage, so the line losses will be greater,

since line losses vary as the square of the amperage.

$$\text{Line Loss} = A^2 R$$

Where A is the amperage and R is the resistance of the line. Power factor might be so low that the amperage would be so high as to cause overheating of the motor, for again the heating depends upon the amperage.

### POWER OF THREE-PHASE CIRCUITS

The total wattage of a three-phase circuit is not the sum of the wattages of the three phases. It is much less than that. In fact it is less than the sum of two of the phases. Actually it is about three-fourths more than that of one phase. To be exact, it is 1.73 times that of one phase.

So if we have a three-phase 220 volt circuit with 10 amperes flowing in each phase and the power factor is 80% then the total wattage for all three phases is:

$$220 \text{ volts} \times 10 \text{ amps.} \times 80\% \times 1.73 = 3,044.8 \text{ watts or about } 3 \text{ kw.}$$

So if a three-phase motor draws 10 amperes per phase on 220 volts and if the power factor is 80%, then the motor would actually be using about 3 kw.

### MOTOR EFFICIENCY

Motors like other machines are not 100% efficient. If they were, we could give one a start and it would run forever; it would be a perpetual motion machine. Compared to other types of machines, electric motors are quite efficient. Small single-phase motors run from 55% to 75% efficiency and in the larger, three-phase types they run up as much as 95% efficient.

The efficiency is the output power divided by the input energy; the efficiency is the per cent of wattage that we pay for that we get use of. If we draw, as in the above example 3 kw. and our motor is, say 75% efficient, we get an output equivalent to 75% of 3 kw. or 2.25 kw.

### INPUT IN KW; OUTPUT IN HP.

But, output of a motor is rated not in kw. but in horsepower. It has been found that 746 watts are equivalent to 1 hp. If we had a 1-hp. motor that was 100% efficient, it would use 746 watts. So to get the horsepower of our motor, into which we fed 3 kw. and got out 75% as much or the equivalent of 2.25 kw. we would divide this output of 2.25 kw. by the 746 ( $2,250 \div 746$ ) and the result, 3, is the horsepower of the motor.

Thus to get the horsepower we multiply the watts it uses by its efficiency and then divide by 746. Putting it another way; to get the wattage it uses, reverse the process, multiply the horsepower by 746 and then divide by the efficiency.

Roughly, then, we see that if a motor has an efficiency of 75%, for each horsepower it will use one kilowatt per hour. If it is more efficient than 75% of the wattage used will be that much less. If it is less efficient than 75% its wattage consumption will be more than 1 kw. per horsepower.

The user should be concerned about efficiency, for a low efficiency means that he is only getting back a low amount of power for the wattage that he is buying and paying for. The difference is lost.

Freon Condensers • Dry-Ex Water Coolers  
• Evaporative Condensers • Forced Convection Units • Oil Separators • Liquid Receivers • Heat Exchangers • Pipe Coils • Hi-Peak Water Coolers • Flooded Water Coolers • Ammonia Condensers  
Write for Catalog on any item

**ACME** INDUSTRIES  
JACKSON, MICHIGAN  
Offices in principal cities



Yes . . . when you see the name DAVISON on the familiar blue label, you may be sure that you'll never find a more dependable desiccant. That's why DAVISON Refrigeration

Grade Silica Gel has been the standard drying agent for years with experienced service men.

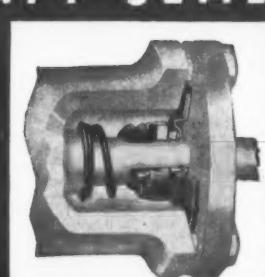
Ask your jobber for Davison Silica Gel in factory-charged dehydrators and for refilling.

"LOOK FOR THE CAN WITH THE BLUE LABEL"

**DAVISON CHEMICAL CORPORATION**  
*Progress through Chemistry*

BALTIMORE-3, MD.  
PIONEERS AND DEVELOPERS OF SILICA GEL  
Canadian exclusive sales agents for DAVISON SILICA GEL:  
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### Refrigerator Compressors

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of Refrigerating Assemblies.

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GREATER  
CAPACITY  
**DFN**  
DEHYDRATORS

- Stay on the line longer
- Need less servicing

See your jobber or write  
McIntire Connector Co.  
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## NEW NO. 47 CATALOG

READY MARCH 15TH 1947

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## Oberc Hits Comment On Sales Policies--

(Concluded from Page 1, Column 2)

"The leadership in the early days of the National Refrigeration Supply Jobbers Association would have gone down if it did not squarely and resourcefully tackle such problems as the following:

"First, the vigorous opposition to the very existence of our branch of the industry.

"Second, the challenge by factors in the industry that parts and supplies wholesalers 'muscled in' and that there was no rightful reason for their existence.

"Third, the question of whether parts and supplies wholesalers should sell high-sides.

"TODAY'S PROBLEM is as named in this letter—whether parts and supplies wholesalers should take advantage of the demands of the trade that a line of packaged goods be provided for them.

"Where would REWA be today if it were not for the foresight of the old timers?

"No expanded service which the refrigeration equipment wholesaler may undertake now or in the future will be to the liking of 100% of all the factors in the industry, and I can honestly appreciate the feelings of some concerns now engaged in the distribution of refrigerated fixtures about a jobber entering this phase of the business.

"These same factors have branched out and expanded their services. The original fixture dealer sold a skeleton case for 'ice.' Later, a low-side and high-side, and expansion valve and control equipment was purchased from the wholesaler to equip the case. Today, the case comes complete to the fixture dealer.

"Nothing could be done about this; it was progress. Fixture dealers today by their very operations encroach upon the dealer who specialized in selling butcher blocks, knives, grinding and slicing machines, etc., and rightfully so, since these items go hand in hand with their equipment.

"I read recently where a very prominent national refrigerator manufacturer is entering the production and distribution field with a line of display cases. Is there anyone that can rightfully say that they should not and are not permitted to do so?

"I have been engaged in this business since 1923, and there is not one concern in existence today that has not expanded its service and facilities. Certainly there should be no serious objection to a decision on our part either to expand our facilities or go out of business, and I hope that the present officers and directors of REWA are sufficiently foresighted to adjust themselves and their thinking to the ever expanding and changing business in which we are engaged.

"Our expanded operations (announced in a brochure which was widely distributed at the recent all industry show in Cleveland) are at the suggestion of the Trade (as defined in Article IV of the Constitution and By-Laws of REWA) and in conformity, we believe, with Article IV and particularly paragraphs (a), (b), 1, 2, 2a, 3, 4, 5, 6, and not, as inferred, 'that we found it necessary to deviate from the true functions of a wholesaler because of economic expediency.'

"The threat that our company would be brought to task, be asked to resign, etc., is completely unwarranted.

"The fact of the matter is that as late as Aug. 28, 1945, we outlined our proposed expansion program to the association, at the same time tendering our resignation, if in the opinion of the directorate we were in violation of REWA's constitution and by-laws. Under date of Nov. 5, 1945, we were advised that it was the unanimous opinion of the directorate that we were in complete compliance, and suggesting the withdrawal of our resignation. This suggestion was

complied with by our letter of Dec. 11, 1945, with the stipulation that before accepting our check for dues for the year 1946, a thorough investigation be made not only of our case but also of other cases whose operations paralleled our own, and this 'without any fanfare or publicity,' since this was strictly association business. In checking all of this correspondence, we find that Mr. Glou was at the time either a vice president, a member of the board of directors, or on the executive committee.

"It is regrettable that we are compelled to so pointedly reply to the statements in the articles referred to, and to ask you to publish this letter to defend the good name and reputation of our company. We are proud of the outstanding job performed by us in southeastern Michigan and are grateful for the support given us by the trade in this area, whom we propose to serve to the best of our ability, and to expand our services to them at their suggestion or command.

"We are glad to refer anyone to any of the following regarding our operations, or economic stability, vis., the Trade, our many well known suppliers, and to Dun & Bradstreet.

J. M. OBERC, President

### \$200,000 Mexico City Storage Plant Considered

WASHINGTON, D. C.—Plans for the construction of a modern refrigeration plant at a cost of approximately 1,000,000 pesos (about \$200,000) have been announced by what is called "the largest wholesale and retail produce market in Mexico City, Mexico," according to the Department of Commerce.

Between 1,000,000 and 2,000,000 pesos is expected to be invested in machinery and equipment. An auxiliary Diesel plant will be installed.

The plant is planned to handle 3,000 tons of foodstuffs, with facilities for quick freezing and storing a variety of sea food, meats, fowl, dairy products, and fruits and vegetables.

### Alter Catalog No. 143 Includes New Items

CHICAGO—Addition of many new items and the latest price revisions are featured in the Spring, 1947, catalog just issued by the Harry Alter Co., refrigeration parts and supplies wholesaler, here.

Known as Catalog No. 143, the book is now being mailed out to customers. Anyone desiring a copy may write to the company at 1728 S. Michigan Ave., Chicago 16.

### Air Firm Incorporates

OKLAHOMA CITY, Okla. — The Air Conditioning, Engineering & Refrigeration Co. has been incorporated here.



**AIR CONDITIONING**  
condensers and coolers designed and built FAST

We design, build, rebuke or rebuild quickly any unit with tubes, standard or special, for Freon, ammonia, CO<sub>2</sub>. Materials on hand for prompt delivery. Emergency maintenance work 24 hours a day, anywhere.

Condenser Service & Engineering Co., Inc.  
88 River Street, Hoboken, N. J.  
Phone Hoboken 3-4425. After 6 P.M. or Sundays, Hoboken 3-4428

TEMPRITE PRODUCTS CORP.  
43 PIQUETTE AVE. • DETROIT 2, MICHIGAN

## Twin City Refrigeration Contractors May Decide To Employ Secretary

ST. PAUL—Tentative plans for future employment of an executive secretary and establishment of an association office were considered by the newly-elected board of the directors of the Twin Cities Refrigeration Contractor's Association at a meeting held here recently to discuss projects for the year.

The board also appointed committees, including two new ones to work on industry statistics and on a code of ethics.

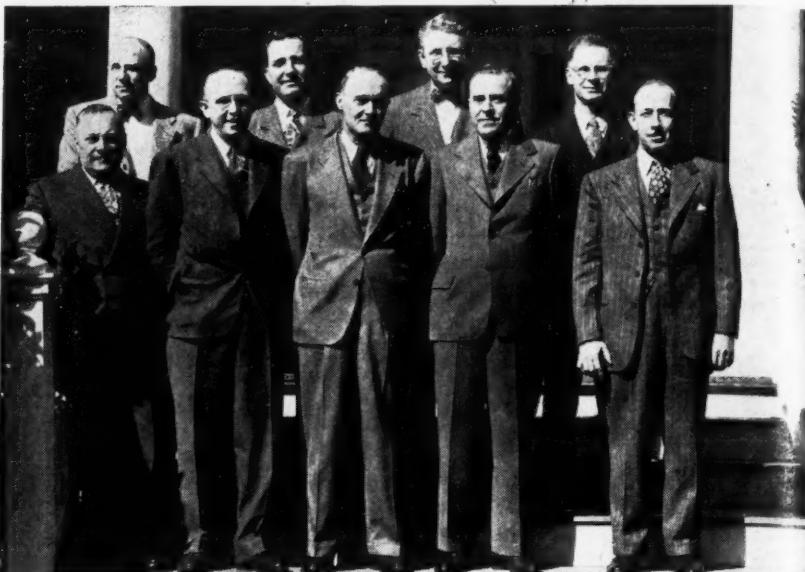
Members of the new board include A. M. Palen, president; J. C. Ehlers, vice president; T. H. Ingersoll, secretary; Joe Parupsky, treasurer; D. M. Halverson, sergeant-at-arms; and Max F. Hoemke, D. E. Frank, and J. P. Marchal.

Committees and chairmen are: Trade relations, Mr. Hoemke; legislative, Joe Parupsky; apprenticeship, J. C. Marchal; constitution and by-laws, Herb Gartner; labor relations, John Parupsky; membership, Don Stevens; meetings, Mr. Halverson; code of ethics, Mr. Ehlers; industry statistics, Mr. Ingersoll; and public relations, Mr. Palen.

Twenty-two firms with about 225 employees are now members of the association, which is affiliated with the National Association of Refrigeration Contractors. The directors believe the membership can be doubled in size if proper steps are taken.

The association has been active for the past two and a half years.

## Condensing Unit Manufacturers In Parley



Members of the Refrigeration Condensing Unit Manufacturers Association, a sectional group of the Refrigeration Equipment Manufacturers Association, met early in February at Pinehurst, N. C. for a discussion of commercial standards, and methods of increasing production.

Those attending, in the picture above are (front row, left to right) H. J. Hedrick, Mills Industries, Inc.; W. J. Aulsebrook, Servel, Inc.; R. L. Sears, Lynch Mfg. Corp.; H. C. Morrison, Curtis Refrigerating Machine Division; J. C. Miller, Lehigh Mfg. Co. Back row: R. Kennedy Hanson, executive secretary, R.E.M.A.; J. W. Thomas, Brunner Mfg. Co.; H. F. Hildreth, Westinghouse Electric Corp.; George Kingston, Kelvinator Division, Nash-Kelvinator Corp.

### White Refrigeration Succeeds Dennis Supply In Des Moines

DES MOINES, Iowa—White Refrigeration Supply, Inc., has succeeded Dennis Refrigeration Supply, parts and supplies wholesale firm, at

Fifth and Crocker Sts. here, announces W. C. White, president of the firm.

There will be no immediate changes in general policy or personnel, but the firm hopes to broaden its services to dealers and servicemen throughout the state of Iowa, said Mr. White.

**"How do you figure costs—**

WELL,  
IT WAS A BARGAIN  
ONCE...

\$ SERVICE CALL  
\$ FOOD SPOILAGE  
\$ OPERATION BREAKDOWN  
\$ PARTS REPLACEMENT  
\$ DOWN TIME

Lehigh  
**BLU-COLD**  
COMMERCIAL REFRIGERATION

first cost or upkeep?"

asks the Lehigh Team

THE CORRECT ANSWER IS . . . it all depends!

Engineers, with slide-rule minds, figure condensing unit costs on such unromantic factors as BTU output and wattage input. On these, BLU-COLD stands pat and will say more later. Our question today is about the smallest item in the "cost" of a good condensing unit—it's cost in dollars. Hence the question—how do you figure? If you can afford to use bottom price units—and can keep paying through the nose to keep them going—forget BLU-COLD. You'll miss the excitement! But if you are a plain middleman, a seller, a manufacturer, with a reputation and an investment to protect, we'd like a chance to show you the really amazing BLU-COLD field service record. Then you'll know why BLU-COLD isn't sold at bargain-basement prices—why it is first choice of so many of America's sharpest, smartest buyers.

**Lehigh Manufacturing Co.**

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